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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<th>Residence</th>
</tr>
</thead>
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<td>Ypsilanti</td>
</tr>
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<td>Chairman</td>
<td></td>
</tr>
<tr>
<td>Beth Wharton Milford</td>
<td>Ypsilanti</td>
</tr>
<tr>
<td>Vice-Chairperson</td>
<td></td>
</tr>
<tr>
<td>Linda Diane Bernard</td>
<td>Detroit</td>
</tr>
<tr>
<td>Timothy J. Dyer</td>
<td>Wayne</td>
</tr>
<tr>
<td>Dolores A. Kinzel</td>
<td>East Lansing</td>
</tr>
<tr>
<td>Edward J. McCormick</td>
<td>Monroe</td>
</tr>
<tr>
<td>Carleton K. Rush</td>
<td>Romulus</td>
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<tr>
<td>John F. Ullrich</td>
<td>Dearborn</td>
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- Designates, throughout the catalog, new or extensively revised material.
INFORMATION REQUESTS

PLEASE ADDRESS SPECIFIC INQUIRES
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, 487-0400
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 Planning and Placement Center, 420 W. Forest, 487-0400
Catalogs (undergraduate) ................................................. Academic Records and Teacher 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 ............................................................ Continuing Education, 319 Goodison, 487-0407
Curricular requirements and scheduling ................................... Academic Services Center, 229 Pierce, 487-2170
Degree and certification requirements ..................... Academic Records and Teacher Certification Office, 5 Pierce, 487-4111
Employment for students ................................................. Career Planning and Placement Center, 420 W. Forest, 487-4040
Evening classes and advising ............................................ 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
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 Teacher Certification Office, 5 Pierce, 487-4111
Teaching vacancies ....................................................... Career Planning and Placement Center, 420 W. Forest, 487-0400
Transcripts ............................................................. Academic Records and Teacher Certification Office, 5 Pierce, 487-4111
Transfer credit .............................................................. Academic Records and Teacher Certification Office, 5 Pierce, 487-4111
Veterans' affairs ......................................................... Veterans' Affairs Office, 217 Goodison, 487-0025

Eastern Michigan University
Ypsilanti, Michigan 48197
## ADMINISTRATIVE OFFICES

### OFFICERS OF THE UNIVERSITY

- **President** .................. James H. Brickley
- **Executive Vice-President** .................. Anthony H. Evans
- **Vice-President for Academic Affairs** .................. Donald F. Drummond, Acting
- **Vice-President for Business and Finance and Treasurer to the Board** ............. Robert J. Romkema
- **Vice-President for Student Affairs** ............... Laurence N. Smith
- **Vice-President for University Relations and Secretary to the Board** .......... Gary D. Hawks

### ACADEMIC AFFAIRS

**College of Arts and Sciences:**
- **Dean** .................. Clark G. Spike, Acting

  **Departments:**
  - Afro-American Studies
    - **Director** .................. Anthony Ingram, Acting
  - Art .................. Head, Kingsley M. Calkins
  - Biology .................. Head, Herbert H. Caswell, Jr.
  - Chemistry .................. Head, Ronald Collins, Acting
  - Economics .................. Head, Young-ibob Chung
  - English Language and Literature
    - **Head** .................. Milton P. Foster
  - Foreign Languages and Literatures
    - **Head** .................. Jean S. Bidwell
  - Geography and Geology
    - **Head** .................. Elwood J. C. Kurth
  - History and Philosophy
    - **Head** .................. Ira M. Wheatley
  - Humanities
    - **Director** .................. William F. Shuter
  - Mathematics .................. Head, James H. Northey
  - Music .................. Head, James B. Hause
  - Physics and Astronomy
    - **Head** .................. Robert Silver
  - Political Science
    - **Head** .................. Leonas Sabaliunas
  - Psychology
    - **Head** .................. Monroe P. Friedman, Acting
  - Sociology
    - **Head** .................. Marcello Truzzi
  - Speech and Dramatic Arts
    - **Head** .................. Thomas J. Murray

**College of Business:**
- **Dean** .................. Earl A. Roth

  **Departments:**
  - Accounting and Finance
    - **Head** .................. E. A. Devine
  - Administrative Services and Business Education
    - **Head** .................. Robert A. Ristau
  - Management
    - **Head** .................. Claude I. Shell, Jr.
  - Marketing
    - **Head** .................. David L. Kurtz
  - Operations Research and Information Systems
    - **Head** .................. Robert H. Holland

**College of Education:**
- **Dean** .................. John D. Mulhern

  **Associate Dean** .................. Jose R. Llanes

  **Coordinator of Student Teaching** .................. Kenneth Stanley

  **Departments:**
  - Curriculum and Instruction
    - **Head** .................. W. Scott Westerman, Jr.
  - Educational Leadership
    - **Head** .................. Kenneth L. Grinstead
  - Educational Psychology
    - **Head** .................. Wilbur A. Williams
  - Guidance and Counseling
    - **Head** .................. John G. Pappas
  - Health, Physical Education, Recreation and Dance
    - **Head** .................. Patric L. Cavanaugh
  - Social Foundations of Education
    - **Head** .................. Norman J. Niesen
  - Center for Community Education
    - **Director** .................. Jack D. Minzey

**College of Human Services:**
- **Dean** .................. Robert Boissonneau

  **Departments:**
  - Home Economics
    - **Head** .................. Billie L. Sands
  - Medical Technology
    - **Director** .................. Lois A. Beerbaum
  - Nursing Education
    - **Head** .................. Janet S. Boyd
  - Occupational Therapy
    - **Head** .................. Lyla M. Spelbring
  - Social Work
    - **Director** .................. Pending

**Applied Science Departments:**
- **Administrative Officer** .................. Pending

  **Departments:**
  - Industrial Technology
    - **Head** .................. H. James Rokusek
  - Military Science
    - **Head** .................. LTC Rexford K. Hawley

**Continuing Education:**
- **Dean** .................. George P. Melican

  **Directors** ..................
  - Dale Benjamin
  - Arthur N. McCafferty
  - Marianne Maynard
  - Jane K. Moehle

**Graduate School:**
- **Dean** .................. Omer E. Robbins, Jr., Interim

  **Associate Dean** .................. Neal F. Hoover

  **Associate Vice-President for Academic Affairs** .................. Raymond LaBounty

  **Academic Budget Officer** .................. Michael L. Chirio, Jr.

  **Academic Records and Teacher Certification:**
  - **Dean** .................. Everett L. Marshall
  - **Associate Deans** .................. Nancy L. Dahl
  - **George W. Linn**
  - **Paul I. Zabawa**

**Academic Services Center:**
- **Director** .................. Shirley A. Green

  **Coordinators** ..................
  - Judith A. Goodman
  - Ann C. Ketles
  - Charles H. Smith
  - Wayen E. MacVey
  - Joan A. Schiller

**Center of Educational Resources:**
- **Director** .................. Fred Blum

  **Associate Director (Public Services)** .................. Pamela Reeves
  - **Associate Director (Media)** .................. LaVerne W. Weber
  - **Registration Office (Director)** .................. Ursula R. Christian
  - **Associate Director** .................. Edgar L. Jones, Jr.
  - **Project Upward Bound (Director)** .................. Hildred J. Lewis

**Coordinator** .................. Sharmar D. Spieser

**Programs:**
- **Contemporary Issues** .................. Director, Monroe P. Friedman

**International Studies** .................. Director, Ranjit S. Baiwa, Acting

### BUSINESS AND FINANCE

- **Controller** .................. Walter E. Eisele, Jr.

  **Director of Accounting** .................. Robert E. Thayer

  **Assistant Director of Accounting** .................. Robert M. Schultz

  **Assistant Director of Accounting** .................. John D. Sloan

  **Coordinator of Systems Installation** .................. Phyllis A. Smith

  **Special Funds Accountant** .................. Pending

  **Fund Accountant** .................. Pending

  **Director of Student Accounting** .................. Judith A. Tedesco
ASSISTANT DIRECTOR
of Student Accounting .......... Pending
Payroll Supervisor ............... Margaret A. Jernigan
Plant Accountant ............... Dario V. Ontiveros
Casher ............................ Natalie M. Bowyer
Accounts Payable Supervisor .... Elnora R. Miller
Student Loan Accountant ......... Jean M. Pfaus
Treasury Accountant ............. Ann N. Shih
Budget Director .................. Pending
Budget Analyst ................... Pending
Budget Analyst ................... Pending
Purchasing Director ............. William D. Swihart
Purchasing Agent ............... John B. Miller
Physical Plant Director .......... William Smart
Safety Director ........................... John E. Hayes
Service Operations Manager ..... Robert A. Andrews

GENERAL ADMINISTRATION

University Computing Executive Director
William A. Rodgers
University Planning Officer ........ George A. Johnston
Institutional Research Director .... Gerald R. Thrasher
Office of Research Development
Director ............................ Charles R. Gale

STUDENT AFFAIRS

Associate Vice-President for
Student Affairs ............... Sandy MacLean
Executive Director for
Student Affairs ............... Dorian Sprandel
Budget Analyst ................... Michael Broughton
Admissions:
Director .......................... Roger Wiley
Associate Director ............... Donald Kajcienski
Admissions Counselors .......... Ann Marie Grillo
                                      Jaime Guerrero
                                      Kurt Hill
                                      Judy Horton
                                      Bill Kalbfleisch
                                      Fred McDaniel
                                      James Olsen
                                      Robert Salisbury
Campus Interact:
Coordinator ........................ Gregory Peoples
Career Planning and Placement Center:
Director .......................... Richard J. Nisbet
Assistant Directors .......... Donald C. Boyd
                                      Theophilus E. Hamilton
                                      Kenneth T. Macek
Assistant Director (Student
Employment) .................... Ruth F. Burson
Assistant Director (Career Planning) .... Joanne M. Burns
Dean of Students:
Dean ................................ Bette C. White
Assistant Dean ................. James E. Scott
Campus Life Officers .. William Barnett
                                      William Cadwallader
                                      Michael Kulczycki
                                      Charles Minneman
Financial Aid:
Director .......................... Lee Fawcett
Associate Director ............... Pending
Award Processing Manager .... Daniel Rosemerry
Financial Aids Advisers .......... Vivian Hoey
                                      Carol Raphael
                                      Juanita Reid
Food Service:
Director .......................... C. Danial Olson
Associate Director .......... M. Margaret Brown
Health Center:
Director .......................... Pending
Housing:
Director .......................... Thomas Sullivan
Assistant Director, Residence Halls .... Robert Cantwell
Residence Hall Area Managers .... Glenna Frank
                                      Neal Belitsky
Manager, Apartments ............. James Vick
McKenny and Conferences:
Director .......................... James E. Mathias
Manager, Special Operations .... Thomas Gunning
Conference Coordinator .......... David Capos
Manager of Bookstore ............ E. Wayne Morgan
Minority Affairs:
Director .......................... Rosselle Wilson-Davenport
Student Publications:
Director .......................... Kenneth Kerber
Special Assistant to the
Vice-President for Student Affairs .... Ralph Kerber

UNIVERSITY RELATIONS

Administrative Assistant
to the Vice-President ........... Mitchell M. Osadchuk
Alumni Relations Director .......... Carolyn Ohst Embree
Athletic Director .................. Alex A. Agase
                                      Paul Shoults
Associate Director ............... Lucy Parker
Business Manager ........................ Bill Turowski
Development Director ............ C. Bruce Rossiter
Information Services Director .... John C. Fountain
News Editor ........................ Kathleen D. Tinney
Assistant News Editor ............ Bradley J. Simmons
Information Specialist .......... Andrew J. Chapelle
Photographer ........................ Richard R. Schwarze
Publications Editor ............... Neil C. Bertram
Coordinator of Promotions
and Production .................... Dale R. Leslie
Assistant Publications Editor .... Nancy J. Mida
Senior Graphic Designer .......... Henryk Pawlowski
Graphic Designer ................. David Tschirhart
Sports Information Director .... James L. Streeter
Personnel Director ............... A. Wayne Douglas
Affirmative Action Officer .......... Pending
Manager, Staff Benefits .......... Leonard D. Posey
Compensation Analyst ............. Barbara James
Compensation and Benefits Manager .... William R. Connor
Employee Relations Manager .... James P. Greene
Employment Manager ............ June Davis
Assistant Manager, Employee Relations .... Keith Clark
WEMU-FM-Station Manager ....... Richard E. Jacques
Program Director .................. Arthur J. Timko
News and Sports Director ........ Sam W. Eiler
1978–79 UNIVERSITY CALENDAR

FALL SEMESTER, 1978
August 30–September 1, Wednesday through Friday . . Program Adjustment
September 4, Monday . . Move-In Day
September 5, Tuesday . . Move-In Day
and Program Adjustment
September 6, Wednesday . . Classes Begin
November 23–26, Thursday through Sunday . . Thanksgiving Recess
November 27, Monday . . Classes Resume
December 16, 18–21, Saturday, Monday through Thursday . . Final Examinations
December 17, Sunday . . Mid-Year Commencement
December 21, Thursday . . Fall Semester Closes

WINTER SEMESTER, 1979
January 2–4, Tuesday through Thursday . . Move-In Days
and Program Adjustment
January 5, Friday . . Classes Begin
February 17–20, Saturday through Tuesday . . Winter Recess
February 21, Wednesday . . Classes Resume
April 4, Wednesday Evening . . Honors Convocation
April 13–15, Friday through Sunday . . Easter Recess
April 16, Monday . . Classes Resume
April 19, 20, 21, 23, 24, Thurs, Fri, Sat, Mon, Tues. . . Final Examinations
April 21, Saturday . . Commencement
April 24, Tuesday . . Winter Semester Closes

SPRING SESSION, 1979
April 29, Sunday . . Move-In Day
April 30, Monday . . Classes Begin
May 28, Monday (No Classes) . . Memorial Day
June 20, Wednesday . . Spring Session Closes

SUMMER SESSION, 1979
June 24, Sunday . . Move-In Day
June 25, Monday . . Classes Begin
July 4, Wednesday (No Classes) . . Independence Day
August 3, Friday . . Six-Week Session Closes
August 17, Friday . . Summer Session Closes

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.
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 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.

RESOURCES

Eastern Michigan University includes 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 Education is Eastern's oldest college, and includes the departments of educational leadership, educational psychology, guidance and counseling, curriculum and instruction, special education, social foundations, and health, physical education, recreation and dance.

The College of Arts and Sciences includes departments of Afro-American studies, art, biology, chemistry, economics, English language and literature, foreign languages and literatures, geography and geology, history and philosophy, mathematics, 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-matur- 

ty science, pre-pharmacy and pre-religious studies. Pre-

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

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

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 applied science departments of the University include industrial education 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 Loesell 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 262.

On-campus housing for more than 6,000 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 1977 was approximately 6000.

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. 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.

STATEMENT OF PURPOSE

Eastern Michigan University is a multi-purpose state university. Its primary specialty, historically, has been teacher education. Its primary service area has been Southeastern Michigan. The University has expanded in recent years to include increased emphasis in all areas of liberal arts, in graduate study, in science, in business, in public service, in health professions, and in industrial technology. An increasing number of students from outside the traditional service area attend Eastern. A substantial portion of the enrollment now comes from throughout the state, from other states and from abroad.

The broad objectives of the University as formulated by the Board of Regents include the following points: Eastern Michigan University aims to serve the educational needs of the people of the state of Michigan, with special attention to the needs of the southeastern part of the state. It seeks to provide a healthy diversity of background and experience in the student body by attracting students from other parts of the nation and the world. A strong interest in the growing area of international education was shown by its commitment in the development of a teacher-education center in the Somali Republic; in its former program for the preparation of Peace Corps workers for the Somali Republic; and in the services that a number of individual members of the faculty have in recent years rendered abroad, including the current primary curriculum development project in Swaziland.

Consistent with its aims and purposes, Eastern offers the following goals:

1. To make available to all undergraduates intellectual training and knowledge that will add meaning, scope, richness and interest to their lives, no matter where they make their careers.

2. To provide for undergraduates an education which will equip them to make important cultural, social and economic contributions to their community, their state and the nation.

3. To provide for graduates training of a quality and scope that will qualify them to enter graduate and professional schools.

4. To provide for undergraduates and graduates the specific education and training to qualify them for careers in education, business and some technological or specialized fields where the basis for such training traditionally exists or grows naturally from a strong program in the liberal arts and sciences, and when there is a need for such training.
To provide graduate work at the fifth-year level (master's degree) and the sixth-year level (specialist's degree), and further graduate work as needs arise.
6. To cooperate with other institutions of higher learning in meeting the needs of the region for adult and continuing education.
7. To extend and diversify programs, including more support for research, as circumstances require and as financial support becomes available, provided that this expansion shall enrich the instructional program.

CIVIL RIGHTS POLICY

"Eastern Michigan University shall 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."

REAFFIRMATION OF EQUAL EMPLOYMENT OPPORTUNITY AND AFFIRMATIVE ACTION POLICIES

It is the policy of Eastern Michigan University, in recognition of the essential rights of all employees and applicants as individuals, to recruit and hire in all job classifications without regard to race, color, sex, marital status, age, religion or national origin or ancestry. Further, it is the policy of the University to take affirmative action to ensure that all personnel actions, such as rate of compensation, promotion, retirement, transfers, fringe benefits, layoffs, return from layoff, University training programs, social and recreational programs, are administered without regard to race, color, sex, marital status, age, religion, national origin or ancestry.

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.


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 multi-purpose 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, history and philosophy, mathematics, music, physics and astronomy, psychology, speech and dramatic arts, accounting and finance, business education, management, marketing, 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.

In the 1960s, Eastern experienced a period of sustained growth. Enrollment nearly quadrupled during the decade, and the number and variety of courses expanded to meet the needs of students and society. Present enrollment is approximately 19,000.

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 ungraded 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.

The Department of Foreign Languages and Literatures was among the first in the county to establish a language laboratory.

The state's first program in industrial education began at EMU in 1901.

A formal physical education program was begun at EMU in 1862 with the construction of one of the first gymnasiums in the state.

One of the first departments of geography in the country was established at EMU in 1900. In student enrollment, the department ranks among the top ten in the United States.

Music studies were established at EMU in 1854.

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 with a grant from the Horace Rackham Foundation, has served as a model and prototype for the rest of the nation. It is equipped with closed circuit television and modern therapeutic and instructional equipment.

Eastern had the first student union of any teachers' college in the nation.

Eastern now boasts one of the finest fine arts programs in the nation.
Eastern Michigan University Today

Eastern will enroll approximately 18,000 students in the fall of 1978. Approximately 85 per cent of these students come from nine counties in southeastern Michigan. However, all areas of Michigan are represented in Eastern’s student body, as are more than 40 other states, the District of Columbia and Puerto Rico. Nearly 45 countries are represented in Eastern’s student body.

Although Eastern is 129 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 18,265 in the fall of 1977.

Summer and spring session enrollments have risen rapidly. More than 8,800 students enrolled for the 1977 spring session and more than 6,000 in the summer sessions.

Approximately $50,000,000 in major construction has been completed since 1960, providing many new facilities as well as expanding and remodeling existing buildings.

The athletic plant includes a 7-year old 22,000-seat football stadium, a 2,500-seat baseball stadium and track and field facilities on the west campus.

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 129 year history, more than 30,600 provisional certificates, 21,130 life certificates and more than 8,200 other certificates have been awarded, for a total of almost 60,000. 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 pilot program in early childhood education and in the new competency-based bilingual-bicultural minor to meet the current needs of teachers of Spanish-speaking students.

However, in the 19 years which Eastern Michigan has been a university, the development of other programs has been rapid. Almost 75 percent of EMU’s undergraduate students are in non-teaching curriculums. This is reflected in new degrees being granted.

In the College of Human Services, a nursing education program, initiated during 1973, leads to a Bachelor of Science 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 nuclear medicine technology began in 1977.

A new 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 were announced in recent years.

The recently revised and expanded social work program has achieved wide recognition.

In the College of Arts and Sciences, a unique 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 this year a new major in this field will be offered.

A program offering a minor in journalism also has been added for those who expect to make journalism a career, and is designed to offer students a general knowledge of the journalistic media, both print and electronic.

A new Bachelor of Music degree with a major in performance is now offered at EMU for students who plan professional careers in music. The curriculum is divided into voice, keyboard and orchestral instrument. It provides rigorous training in all aspects of music but does not lead to a teaching certificate for Michigan public schools. A new music therapy program has been prepared.

The most extensive and dramatic 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 this year are two programs offered by the Geography and Geology Department—a major in land use analysis and a minor in coastal environments, to prepare professionals to respond to the planning, utilization and conservation needs of our society.

A new program leading to a bachelor’s degree in labor studies, unique in the state of Michigan, is now offered at EMU. Developed by the Department of Economics, the program 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 the 1973–74 year. 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 in governmental agencies or private agencies having extensive dealings with government. The course of study includes history, political science, economics, geography, sociology and business. A new, related program began in 1977: 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. The finance major has been diversified recently, now offering a concentration in real estate. Last year, the new major in insurance began. The shopping center management major shows an effective response to a specialized business need. 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.

A number of other programs are being developed. In a real sense, almost all parts of the University are actively seeking ways to strengthen existing programs and develop new ones, to utilize the strengths of the University and to respond to the needs of our students, our state and our nation.

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. The University is accredited by the American Assembly of Collegiate Schools of Business, by the National Association of Schools of Music and is approved by the American Association of University Women. 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.
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.

TYPES OF ADMISSION

To apply for admission to Eastern Michigan University, each applicant must complete and submit a personal application form. A $10 application fee is required along with additional supporting credentials. 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 transferable 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. 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.

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.

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. (No financial aid is available).

Students whose native language is not English 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. Students required to take these courses will be admitted to begin in fall or winter semesters only. A detailed description of specific requirements and procedures can be obtained from the Admissions Office or the Academic Services Center.

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 Teacher Certification Office 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 Teacher Certification Office.
2. Complete the application and return it to the Academic Records and Teacher Certification Office.

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 Teacher 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 approval of the department concerned or the dean of academic records and teacher 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 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.

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 by satisfactory scores on national examinations of the program. Complete information is available on request to the Admissions 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 College Level Examination program, Box 1821, Princeton, New Jersey 08540. The bulletin lists centers, dates of examinations and fees. The following regulations govern granting of 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):

<table>
<thead>
<tr>
<th>Subject Exam</th>
<th>Score</th>
<th>Course Credited or Waived</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Arts and Sciences</td>
<td></td>
<td>*College Composition</td>
<td></td>
</tr>
<tr>
<td>*English Literature</td>
<td>55–64</td>
<td>Waived to take an advanced composition course, or a foreign</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>language course if eligible</td>
<td></td>
</tr>
<tr>
<td></td>
<td>65</td>
<td>English Composition</td>
<td></td>
</tr>
<tr>
<td>*American History</td>
<td>55–64</td>
<td>Waived to take 2 advanced literature courses or 2 intermediate</td>
<td></td>
</tr>
<tr>
<td>*Western Civilization</td>
<td></td>
<td>foreign language courses</td>
<td></td>
</tr>
<tr>
<td>*American Government</td>
<td>65</td>
<td>101 and 102 English Literature</td>
<td>6</td>
</tr>
<tr>
<td>College Algebra</td>
<td>50</td>
<td>223 and 224 American History</td>
<td>6</td>
</tr>
<tr>
<td>Trigonometry</td>
<td>50</td>
<td>101 and 102 History of Civilization</td>
<td>6</td>
</tr>
<tr>
<td>*Elementary Computer Programming- Fortran IV</td>
<td>51</td>
<td>137 Introduction to Computer Programming</td>
<td>3</td>
</tr>
<tr>
<td>*Calculus with Analytic Geometry</td>
<td>55</td>
<td>120 Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>General Psychology</td>
<td>50</td>
<td>101 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>College of Business</td>
<td>50</td>
<td>382 Intro to Management</td>
<td>3</td>
</tr>
<tr>
<td>Intro to Business Management</td>
<td>56</td>
<td>240 Principles of Accounting</td>
<td>3</td>
</tr>
<tr>
<td>Introductory Accounting</td>
<td>55</td>
<td>303 Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>Introductory Business Law</td>
<td>50</td>
<td>302 Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>College of Education</td>
<td>50</td>
<td>320 Human Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>*Educational Psychology</td>
<td></td>
<td>340 Intro to Measure. and Evaluation</td>
<td>2</td>
</tr>
<tr>
<td>*Human Development</td>
<td>50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Tests and Measurements</td>
<td>50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Essay required</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TUITION AND FEES

FEES SUBJECT TO REVISION

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

APPLICATION FEE

An application fee of $10.00 must accompany each undergraduate application for admission to Eastern Michigan University. The fee is not refundable and does not apply to any tuition or other fees.

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 1977–78 levels, are:

MICHIGAN RESIDENT

<table>
<thead>
<tr>
<th>Course Level</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate Courses (100–400 level)</td>
<td>$24.50</td>
</tr>
<tr>
<td>Graduate Courses (500–600 level)</td>
<td>$37.00</td>
</tr>
</tbody>
</table>

NON-RESIDENT

<table>
<thead>
<tr>
<th>Course Level</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate Courses (100–400 level)</td>
<td>$60.00</td>
</tr>
<tr>
<td>Graduate Courses (500–600 level)</td>
<td>$90.00</td>
</tr>
</tbody>
</table>

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

It is the policy of the Board of Regents for Eastern Michigan University that Michigan residency for purposes of tuition shall be determined by the domicile of the student, and that such domicile shall be determined by the following criteria:

1. Length of time lived in Michigan prior to first enrollment.
2. High school attended or previous college.
3. Domicile of parents.
4. Status as an elector.
5. Status as a taxpayer.
6. Source, length and continuity of employment.
7. Marital status.
8. Ownership of real estate.
9. Source of driver’s license (state).
10. Source of vehicle license (state).
11. Self-supporting or dependency on others.
12. The type of visa held if a student is from a foreign country.
13. Other factors which may be deemed relevant evidence of domicile.

Students shall have their residency status determined at the time of their initial admission, and this status may be reviewed at each subsequent registration.

NOTE: It shall be 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.

The Treasurer of the Board of Regents shall be the responsible officer for developing reasonable procedures and evaluating qualifications of individual applicants.

AUDITING FEES

Tuition and registration rates for auditing courses are the same as for credit. See page 22 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, in the past, been referred to a collection agency because of the students’ failure to pay the University.

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.

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 $10 per semester for fall and winter semesters, and $5 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 1977–78 are:

- 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 $1 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 Education: Typing Courses, Calculator Applications.
- Speech and Drama: Fundamentals of Film Production.

**PLACEMENT BULLETIN**

A charge of $10 is made for each annual subscription to the University Placement Bulletin Service. Subscriptions are available on an annual basis only.

**TRANSCRIPT FEE**

Each student or former student is furnished one official transcript either before or after graduation without charge. A charge of $2 is made for each additional transcript.

**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.

**BOARD AND ROOM FEES**

See below or the Residence Hall Program brochure.

**FEES SUBJECT TO REVISION**

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

Total Estimated Academic Year Costs (Residence Hall Students)

The Financial Aid Office conducted a Student Expense Survey during the fall semester of 1976. 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 ........................................ $797
Books and Academic Supplies .......................... 150
Residence Hall Room and Board ...................... 1599
Personal, Transportation, and Miscellaneous Expenses ...................... 704

Michigan Resident Total $3,250
Out-of-state Student Total $4,300

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

Students who are Michigan residents with other living arrangements can anticipate the following total costs based on the Financial Aid Office Student Expense Survey:

Eight-Month Academic Year Costs
Single Dependent Student Living in an Apartment $2,950
Single Dependent Student Commuting from Home $2,150–2,550

12-Month Costs
Single Independent Student $4,350
Married Student—No Children $6,950 *
Head of Household With One Child $6,500 **

*Increase total by $1,000 for first child and $800 for each additional child. Increase for additional tuition and book costs if husband or wife is a student.
**Increase total by $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.)

<table>
<thead>
<tr>
<th>Item</th>
<th>1977–78 Amount</th>
<th>When Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition for 15 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Michigan Resident (24.50 per hour)</td>
<td>$367.50</td>
<td>In accordance with University payment plan</td>
</tr>
<tr>
<td>Out-of-State Resident (60.00 per hour)</td>
<td>$900</td>
<td></td>
</tr>
<tr>
<td>Registration Fee—All Students</td>
<td>$20</td>
<td>At Registration</td>
</tr>
<tr>
<td>Student Government Fee—All Students</td>
<td>$1</td>
<td>With Tuition</td>
</tr>
<tr>
<td>Health Center Fee—All Students with seven or more hours</td>
<td>$10</td>
<td>With Tuition</td>
</tr>
<tr>
<td>Music Fee—Music Majors</td>
<td>$60</td>
<td>With Tuition</td>
</tr>
<tr>
<td>Other students taking an applied music lesson</td>
<td>$30–60</td>
<td>With Tuition</td>
</tr>
<tr>
<td>Residence Hall Room and Board</td>
<td>$799.50</td>
<td>With Tuition</td>
</tr>
<tr>
<td>(double room with 20 meals per week)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Residence Hall Damage Deposit</td>
<td>$35</td>
<td>With First Room Application</td>
</tr>
</tbody>
</table>

*The $35 residence hall deposit is payable only with the first room application. For succeeding applications, only the charges against this deposit are necessary. See page 28 for an explanation of this deposit.
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.

Financial aid applicants are considered for all types of financial aid for which they are eligible. During 1976-77, approximately 6,000 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 are available at the Office of Financial Aid, 212 Pierce Hall, (313) 487-0455 and from high school and community college counselors. 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). Students applying for aid based on need must submit a Financial Aid Form (FAF) to the College Scholarship Service. Students applying for scholarships and talent awards based on achievement need not file a financial statement.

NEED-BASED AID AWARDED BY EMU

NATIONAL DIRECT STUDENT LOANS

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

COLLEGE WORK-STUDY PROGRAM

The federally-funded College Work-Study Program provides full-time 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 when the University is in session and a maximum of 40 hours per week when the University is not in session. 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.

SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANTS

The purpose of this program is to assist students who are U.S. citizens or permanent U.S. residents and who have exceptional financial need. All full-time 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 normal maximum yearly grant is $1,000. SEO Grants can be no more than one-half the student's total financial need and must be matched by other types of financial aid.

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
- Presidential Awards
- Campus Leader Awards
- Regional High School 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 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.

STUDENT AID BOARD OF DIRECTORS

The Student Aid Board of Directors serves as a committee to make recommendations concerning loan and scholarship...
funds and to receive gifts and contributions to be deposited with the Board of Regents in accordance with the wishes of the donors. Members of the Board of Directors are appointed for a five-year term by the president of Eastern Michigan University. On June 4, 1965, the Board of Regents recognized the Student Aid Board of Directors for having “continually sought and diligently invested funds received by the University.” The Board of Regents welcomes at all times additions to existing funds as well as the establishment of new loan and scholarship funds.

OTHER RESOURCES AVAILABLE

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 directly to the BEOG Program for eligibility determination and receive a Student Eligibility Report (SER). Eligible students then submit the SER to the Office of Financial Aid for final award determination. Grants range from $200 to $1,600, less expected family contribution. Amounts are reduced if federal funding is not sufficient. Applications are available from high school counselors, post offices, libraries, or 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 up to full 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.

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 benefits or remission of tuition and registration fee under Act 245 must file an application with the Michigan Veterans Trust Fund, Board of Trustees. Those students who qualify under the terms of the legislation are eligible to submit a University application form. Students receive applications from and submit applications to the Office of Financial Aid.

VETERANS BENEFITS
All veterans eligible for education benefits under the new G.I. Bill must furnish the Veteran’s Affairs Office at the University with their Certificate of Eligibility (if available) at or prior to the start of classes. 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.

LAW ENFORCEMENT GRANTS
This federal program pays tuition and fees for full-time state or local employees who are working for a publicly funded agency and whose position is directly related to the criminal justice system.

Further information and applications are available in the Office of Financial Aid.

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. 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.

STATE DIRECT LOAN PROGRAM
The State Direct Loan Program is a loan program with terms similar to those of 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 his legal dependent or the child of a deceased veteran. 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.

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 and (3) who qualify academically (minimum 2.0 “C” undergraduate, 5.0 “B” graduate) 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  
Fórum 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  
Hilton 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 Wozniak  
Ypsilanti Womens Study Club
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 are 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 2/3.

CLASS LEVELS

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

<table>
<thead>
<tr>
<th>Class</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>0–24</td>
</tr>
<tr>
<td>Sophomore</td>
<td>25–54</td>
</tr>
<tr>
<td>Junior</td>
<td>55–84</td>
</tr>
<tr>
<td>Senior</td>
<td>85 or over</td>
</tr>
</tbody>
</table>

COURSE LEVELS

When selecting courses, students should be aware of the general course numbering pattern in the University. Courses number from:

- 100 to 199 are intended primarily as freshman courses;
- 200 to 299 are intended primarily as sophomore courses;
- 300 to 399 are intended primarily as junior courses;
- 400 to 499 are intended primarily as senior courses;
- 500 and above are intended primarily for graduate students;
- 597 through 699 are exclusively for graduate students.

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.

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. Activity courses in physical education are not counted as part of an academic load.

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:
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.

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

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 department 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, provided that the student does not have past due obligations to the University. Undergraduate students' academic records are kept on their permanent record card in the Academic Records and Teacher Certification Office, room 5, Pierce Hall. Unless there are past due financial obligations, students may get a current transcript copy of their complete record by requesting it in writing from that office, upon paying the transcript fee indicated on page 16 of this catalog.

**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."

**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 in 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.

**CREDIT BY EXAMINATION**

In addition to credit through the College Level Examination Program (CLEP) described on page 13, credit by proficiency examination is available by direct examination in a department.

The student who wishes credit by proficiency examination within a department in a course not included in CLEP should first discuss the request with the head of the department in which the course is offered. If the request is approved by the department head, the student will then make application at the Academic Services Center, where further steps will be explained. Approval will not be granted for a course in which the student has been enrolled.

Only currently enrolled students may apply. Credit will not be awarded for any course below the level of the course for which the student already has credit or which the student is taking. 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.
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 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 at the time of registration. This decision becomes binding at the end of the period for dropping 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 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 taken and repeated at another accredited college or university, only the latest grade will be used in computing 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. Withdrawals initiated during this period are not eligible for tuition adjustment. See page 15 for tuition and fee information.

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, B or 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.

Notes on Procedure

For the fourth through the tenth week, a withdrawal form may be obtained from the Academic Services Center, or from any academic department. This form, with the instructor's signature, is submitted to the Academic Services Center 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.

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 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.
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 “E” for the course.

When withdrawal from the class 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 post-mark date. The Withdrawal from the University policy is stated below.

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. 12.

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 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.

These procedures also apply for spring and summer sessions. Please refer to the current class schedule for the session concerned for exact withdrawal dates.

ACADEMIC DISTINCTION

The term summa cum laude (3.90–4.00); magnus cum laude (3.70–3.89); or cum laude (3.50–3.69) will appear on the diploma 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 biology, English composition, literature, history 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 Summer Orientation and Advising Program 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 English Language and Literature offers a special Honors Program for English majors. The regulations governing that program may be found on page 153. 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 147, 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. (Note that "surplus" grade points from institutions other than EMU cannot be used to reduce a grade-point deficit incurred at EMU.)

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.

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).

Within the first 30 days of a semester—and preferably within the first week of a semester—students on academic probation are required to have a conference with their assigned academic adviser to review their program of classes and their plans for the semester. Further conferences may be required, or the student's academic course load may be restricted, or the student may be informed of special conditions stipulated by the Academic Services Center. Acting for the University Academic Standards Committee, to help ensure satisfactory progress toward graduation.

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: Curriculum and Instruction, Social Foundations, Student Teaching, Educational Psychology, Guidance and Counseling and Special Education. This includes all strictly Group IV methods courses 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, ECE 101 Early Childhood Education, SSI 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.

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 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.

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 policies 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 Academic Standards Committee.

b. A freshman may, with the approval of the 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," "W" or "S," will be retained only at the discretion of the 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.

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

3. Taking the SAT for re-evaluation in conjunction with Items 1 and 2, if considered necessary by the Academic Services Center.

A student who is readmitted 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

Information on the University's policy on standards of integrity for academic work, on students' academic rights and responsibilities and on the grievance procedures in this area, is available from the Academic Services Center, 229 Pierce Hall, and the Office of the Vice-President for Academic Affairs, 146 Pierce Hall.

The University's policy and regulations relating to student conduct and conditions for dismissal or other disciplinary action for unsatisfactory conduct are found in the University's magazine Gameplan, 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. Also, copies of the Student Conduct Code and Judicial Structure are available at the Dean of Students Office, 214 Goodison Hall.

ACADEMIC SUPPORT 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 in the following list are free of charge and are available to all undergraduate students:
   a. Reading skills classes are available in two seven-week sessions each semester (fall and winter) and in one seven-week session during spring term. The course will help students improve reading efficiency, build vocabulary, and strengthen note-taking and test-taking skills. Registration is in 227 Pierce Hall prior to the beginning of each seven-week session.
   b. Tutoring is provided in some academic departments at various times between 8 a.m. and 5 p.m. Monday through Friday. Scheduling details are available in 227 Pierce Hall.
   c. Tutoring in a variety of subject areas is available in the Learning Resource Center (LRC—106B Library, 487-1390) 5 p.m. to 10 p.m., Monday through Thursday.

2. The Writing Clinic, supervised by the English Department in 602P Pay-Harrold, will assist all currently registered students, both those having problems in advanced courses and those seeking to master basic skills. Students need not be enrolled in an English class.

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

4. 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.

5. The Career Planning and Placement Center which provides assistance in assessing occupational interests, skills and values is available through the Career Planning Office. Individual counseling and testing, Life/Work Planning Programs, and the Career Resource Center are among the services provided. The Career Planning telephone number is 487-1074.

Students are also invited to use the career planning services of the following offices: Academic Services Center, Biocareer 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.

6. Introduction to University Study (EDP 100) is available in winter term to all students needing study skills assistance. Credit is awarded and normal tuition charges apply. For additional information, see course description under courses offered by the Department of Educational Psychology, page 227.

CAREER PLANNING AND PLACEMENT CENTER

Eastern Michigan University offers a centralized service for Career Planning, Student Employment, and Career Placement for its students and alumni. The Center, located at 420 West Forest, assists students and graduates with their career planning and employment needs from the time they are enrolled at EMU through their alumni years.

Career Planning

The Career Planning Office provides assistance in helping students to assess occupational interests, skills, and values. Individual counseling and testing, Life/Work/Career Planning workshops, and the Career Resource Center with materials on hundreds of occupations are among the services available to those involved in making important life decisions.

The Career Planning telephone number is 487-1074.

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 babysitting to extended part-time, highly skilled positions. Student Employment attempts to match positions to students' interests, skills, class schedule, etc., whenever possible.

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 em-
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 Aids, 212 Pierce Hall.

The Student Employment telephone number is 487-0400.

Career Placement

The Center offers active assistance to graduates and alumni in securing employment after graduation and in obtaining professional advancement throughout their career. Career opportunities are provided in business, industry, government, health and human services, and education from pre-school through university level.

Such assistance includes: 1) credential reference services, 2) "launch your job seeking campaign" seminars, 3) resume and letter of application assistance, 4) interview preparation and technique, 5) Placement Bulletin listing current vacancies, employers' addresses and method of contact, 6) on-campus interview appointments with employer representatives, and 7) Employer career literature, directories and job description materials.

It is recommended that each graduate register at the Career Planning and Placement Center and develop a credential file for future reference use.

The telephone numbers for Career Placement are: Business and Industry, 487-0316; and Education Placement, 487-0400.

SNOW HEALTH CENTER

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 Center's department of mental health offers professional help for students having emotional problems or mental difficulties. This department is staffed by a full-time counselor who specializes in mental health counseling, and several part-time psychiatrists who provide psychiatric consultation and therapy for those students who are in need of such services.

The Health Center is open weekdays from 8 a.m. to 11:45 a.m. and from 1 p.m. to 9:45 p.m. but is closed on Saturdays, Sundays and holidays.

Specialty clinics, staffed by physician specialists, are held at the Health Center on weekday evenings for special 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.

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.

A complete list of fees is available at the health center. The health center participation fee is described on page 16.
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 (Residence Hall Program); 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, coursework, 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 new students and former students who do not have a residence hall deposit on account with the University from the previous semester must submit their application and residence hall contract to the University Cashier's Office with a $35.00 residence hall deposit. This deposit is not applied toward the initial residence hall payment and is refunded upon contract fulfillment (less any charges due from the student) at the conclusion of the student's period of occupancy, or if cancellation is received by University Housing prior to the cancellation date published in the residence hall contract and Residence Hall Program booklet. (The validation of receipt date will be used as the determining factor when the request is received by mail.) 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 same office.

Residence hall fees for room and board for the 1977-78 academic year were $1,595 for 20 meals per week; the 15-meal option and 13-meal option were $1,565; the 10-meal option $1,535; and a no meal room plan (open to students with conflicts with all other meal options, and by permission only) was $807. A single room option will be available providing actual occupancy levels in the residence halls are below the specified level. The single occupancy option during 1977-78 was available for an additional $480 per academic year. The University reserves the right to revise rates and services as needs 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, second 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 dining" for student employees. Weekend meal hours have also been adjusted (and extended) to reflect weekend eating habits.

Food service staff also work closely with residence student government to continually adapt the food service program to the needs of current residence 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, is available to assist students who desire advice on off-campus problems or off-campus eligibility.

TYPICAL RESIDENCE HALL ROOM FLOOR PLANS

Wise Hall

Jones Hall

Residence Hall Towers

Hill, Hoyt, and Pittman Halls

Best, Phelps-Sellers and Walton-Putnam Halls

Downing, Buell, and Goddard Halls
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 include the Eastern Echo (student newspaper), Cellar Roots (campus literary magazine), and the Aurora (the yearbook).

The Office of Campus Life provides a well-rounded concert-lecture series as well as diversified cultural activities. In recent years, popular groups like Chicago, the Beach Boys, the Fifth Dimension, and Earth, Wind, and Fire have appeared on campus. In the jazz area, notable artists such as Les McCann, Herbie Hancock, and Freddie Hubbard have performed. The internationally known Fiesta Folklórico ballet and the National Shakespeare Company have presented performances on campus. In the speaker area, national personalities such as William F. Buckley, Daniel Elsberg, Mark Lane, 'Dr. Max Stackhouse, and Dr. Ted Gill have participated in campus lecture programs.

In addition to the Campus Life Office, several other departments and offices contribute to the co-curricular program of the university, i.e., the Office of Minority Affairs, and 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 Disciplinary Review 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

Professional and Honorary Organizations Mainline is the coordinating body for professional and honorary organizations.

RELIGIOUS ORGANIZATIONS

Alpha Omega Fellowship
Baha’i Club
Baptist Student Union (Southern Baptist)
Black Gospel Choir
Campus Crusade for Christ
Christian Science Organization
Inter-Varsity Christian Fellowship
Jewish Student Alliance
Mormon Perspectives
Moslem Student Association
Pentecostal Student Organization
United Ministries in Higher Education
(Disciples of Christ/Episcopal/Methodist/Presbyterian/United Church)
University Lutheran Chapel of the Resurrection
United Students for Christ
Way Campus Outreach
Word of God Student Organization

RESIDENCE HALL COUNCILS

Residence Hall Association (RHA) is the governing body for residence hall councils.
Residential Hall Educational and Cultural Council (RHECC)
Best Hall
Downing Hall
Phelps-Sellers Hall
Pittman Hall
Walton-Putnam Hall
STUDENT PUBLICATIONS

Aurora
Eastern Echo
Cellar Roots

ASSOCIATIONS, CLUBS

Accounting and Finance Club
Administrative Management Society
Afro-Renaissance Theatre Co.
Alpha Angels
Amateur Radio Club
American Society Interior Design
Aquarian Yoga Club
Archery Club
Art Education Association
Association for Computing Machinery
Astronomy Club
Beau Biens
Biology Club
Black Resident and Staff Coalition
Black Student Association
Celebrants
Chicano Student Association
Chinese Student Association
Chess Club
Collegiate Administrative Management Society
Community Entertainment
Dean's Board of Student Consultants
Democratic Socialist Caucus
Distributive Education Club of America
Economics Club
EMU Home Economics
Fencing Society
Forensics
Front Wargamer's Association
Gay Peoples Association
Hatha Yoga Club
Hockey Club
Interfraternity Council
International Student Association
Kappa Kitten Club
Le Cercle Francois
Management Club
Marketing Club
National Students Speech and Hearing Association
Newman Club
Occupational Therapy Student Association
Omega Phi Alpha
Pamojo
Panhellenic Council
Political Science Association
Psychology Club
Public Administration Association
Quad Organization
Raiders Platoon
ROTC Cadet Batallion
Sailing and Scuba Club
Science Fiction Society
Ski Club
Soccer Club
SOS
Sound-Off
Student Council for Exceptional Children
Student Democratic Caucus
Student Government
Student International Meditation Society
Student Social Work Organization
University Madrigal Singers
Veterans Association
Womenspace
WQBR-Radio
Ypsilanti Food Co-op
ATHLETICS

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

The Department of Intercollegiate Athletics offers a well-rounded program of varsity, intramural and club 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 riflery.

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 compete as members of the Association for Intercollegiate Athletics for Women (AIAW). The women's varsity sports are basketball, cross country, field hockey, gymnastics, swimming, tennis, track (indoor and outdoor) and volleyball.

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.

Co-Educational
Cross Country
Tennis
Basketball
Free Throw Contest
Paddleball
Horseshoes
Float-A-Thon

Men
Softball
Football
Golf
Bowling
Basketball
Track
Wrestling
Swimming
Basketball
Softball
Tennis
Bowling
Swimming
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 twelve sports.
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 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 and Master of Art Education
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 34.

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 34.)

Bachelor of Fine Arts
The Requirement of the curriculum leading to the Bachelor of Fine Arts degree may be found on page 51.

Bachelor of Art Education
The requirements of the curriculum leading to the Bachelor of Art Education degree may be found on page 52.

Bachelor of Business Education
The requirements of the curriculum leading to the Bachelor of Business Education degree may be found on page 59.

Bachelor of Business Administration
The requirements of the curriculum leading to the Bachelor of Business Administration degree may be found on page 57.

Bachelor of Music—Performance
The requirements of the curriculum leading to the Bachelor of Music Performance degree may be found on page 108.

Bachelor of Music Education
The requirements for the curriculum leading to the degree of Bachelor of Music Education may be found on pages 106–108.

Bachelor of Music Therapy
The requirements of the curriculum leading to the degree of Bachelor of Music Therapy may be found on pages 109. The date for implementing the program is still to be determined.

Eastern Michigan University offers its undergraduate students 44 different curriculums, leading to professional careers or graduate study. Thirteen of these are teaching curriculums resulting in a bachelor's degree and a teacher's certificate. Also available are nine pre-professional curriculums, most of which are not in themselves four-year degree programs. There is also a flexible program in business of less than four years.

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

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 Eastern Michigan University, they may be required to have their credits re-evaluated by the dean of academic records and teacher certification in keeping with catalog requirements in force during the year of their graduation. See special time restrictions in the description of the Nursing Education 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 four hours of credit in physical education activity courses may be applied to this minimum of 124 semester hours.

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

Group I—Language and Literature
Ancient languages 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; military science; nursing; and courses in library science as indicated.

Group VII—Physical Education and Health Education
Physical education; health education; recreation; military science.

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 curriculums add requirements, specify additional courses, or have some planned program of concentr-
tion (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 curriculums, whatever the degree awarded, include at least those general requirements that satisfy the Bachelor of Science degree.

A complete list of fields of study followed by an alphabetical compilation of all programs of study offered by the University (all curriculums, majors and minors) begins in the next major section of the catalog on page 41.

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 35. 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.

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.

### 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

(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:

112 American Government or
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.

**Major, minimum** ........................................... 30

**Minor, minimum** .......................................... 20

**Group VII Physical Education and Health** ....... 4

**Physical education activity courses** ............. 4

**Note:** Two semester hours of military science may be applied toward this requirement.

**Free electives** ............................................. 32–25

**Total** ......................................................... 124

### Individualized Interdisciplinary Concentration

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. See page 93.

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 35. 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, 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.

### Semester Hours

**Group I Language** ........................................... 8–9

- One course in English composition or, if eligible, a foreign language course.

**Group II Social Sciences** ......................... 9–12

- One course in American government selected from:
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 eight Basic Studies required courses indicated by asterisks in the language, social science and humanities areas.

Translated into specific areas, Basic Studies include:

<table>
<thead>
<tr>
<th>Group I Language Area</th>
<th>Three courses required.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. *One course in English composition, or, if eligible, a foreign language course.</td>
<td></td>
</tr>
<tr>
<td>2. One course in fundamentals of speech.</td>
<td></td>
</tr>
<tr>
<td>3. *One elective course in English language, in a foreign language, in speech or in library science (Group I).</td>
<td></td>
</tr>
</tbody>
</table>

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

1. In general, students must complete 121 English Composition or 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, 120 English Composition Laboratory their first semester. PASS students are assigned to 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. They may not use FLA 411 or 412 or “Courses Given in English.” 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, but not Speech 227, 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 103 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; Physics 100 (students in elementary education only), 110, 115, 140, 210 and, for students with proper mathematics background, 221 or 223; Astronomy 104 plus either 103 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 Mathematics Department for which the student is qualified, including computer science courses, and is not limited to such elementary courses as Mathematics 101 and 104.

3. Any elective in Group II, including any course offered in the Psychology Department, in any of the other science departments or in mathematics. 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 112 or 113 American Government or 202 State and Local Government in the Political Science Department to meet the requirements specified by State Law, Act 106, Public Acts of 1954.
2. Students may select any 100-level course in the History Department, presently History 101, 102, 103, 105, or 123.
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 201 and 481.

If students choose the “two-course sequence” in economics, it is 200 American Economy or 201 Principles of Economics and any other economics course. In geography, it is two courses, including usually 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 105 Introductory Sociology or 135 Cultural Anthropology or any other Sociology Department courses, including social work, 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 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 have written departmental permission be elected for this requirement, but 207 Children’s Literature may not be applied.

2. Any course taught in the philosophy section of the History and Philosophy Department may apply. Philosophy 180, 220, 210, 212, and 213 are currently available without a prerequisite or permission. For a “religion” course, students meeting the prerequisites may currently elect the following: History 201, 301, 302, 303, Philosophy 350, 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 Child and Adolescents”) 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 100, 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 24 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, Speech and Dramatic Arts and Foreign Languages. More extensive description of the courses and the Program can be found on page 174. The Humanities courses may be applied toward the following Basic Studies requirements:

**Group I Language**

One course in English composition or, if eligible, a foreign language course

One elective course in English language or in a foreign language

**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 fundamentals of speech

**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 curriculums for teachers of art, teachers of business education, teachers of industrial education and teachers of music, or the professional curriculums in applied science, business administration, nursing, music therapy, industrial technology and occupational therapy 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.

Transfer students may be required to complete satisfactorily three semester hours in their minor field and as much as six semester hours in their major field at Eastern Michigan University in satisfying the requirements for graduation unless exempted by the departments concerned.

Credits in 118-119-120-121 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.

A complete alphabetical compilation of all majors and minors begins on page 41 in the next major section of the catalog under "Programs of Study."

**REQUIREMENT IN GOVERNMENT**

Each student must complete a three semester hour course in government in accordance with Act 106, Public Acts of 1954.

**PHYSICAL EDUCATION ACTIVITY AND MILITARY SCIENCE**

All students shall present for graduation four semester hours in physical education activity courses. However, veterans with at least one year of active duty may substitute their military service credit in lieu of activity courses.

Although credit for physical education activity courses is computed in semester hours, the grades for these courses are not used in calculating a student's grade point average. No more than four semester hours of credit for physical education activity courses may be applied to the minimum 124 credit hours required for graduation.

This physical education activity requirement may be met in the following ways:

1. Students who do not elect the military science options below shall complete four 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 Health, Physical Education, Recreation and Dance Department, a decision as to appropriate modification or waiver of the requirement will be made to insure maximum benefit to the student.

2. Any two semester hours of credit received for Military Science courses may, at the option of the student, be used either as elective credit or be applied toward the physical education requirement. Students who complete the entire Basic ROTC program will receive 7 semester hours and may count a maximum of 2 of them toward the physical education requirement. By completing the Advanced ROTC program, a student is deemed to have satisfied the entire physical education requirement.

3. 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.
   (d) Students who have completed three years of Junior ROTC will be given credit for the first two years of Military Science.

4. 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 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

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 dean of academic records and teacher 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 Teacher 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 personnel folder for filing in the Career Planning and Placement Center is suggested before graduation. Candidates for graduation in all curriculums should check with the Career Planning and Placement Center to make certain that all placement forms have been completed.

TEACHING CERTIFICATES

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

State Secondary Provisional Certificate*
Qualifies 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.

GENERAL INFORMATION CONCERNING CERTIFICATION

1. Teaching certificates will be granted only to persons who are 18 years of age or older.

2. Continuing teaching certificates will be granted only to individuals who are citizens of the United States.

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. Be a United States citizen.

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

C. 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 Teacher Certification.

The procedure after three years of successful teaching and the earning of 18 semester hours credit in an approved program is as follows:

1. Make an appointment with the teacher certification administrator or by going to the office of Academic Records and Teacher Certification. The office may be in the office of the Academic Affairs Dean or in the Office of Academic Records and Teacher Certification.

2. Present the Michigan provisional certificate.

3. Present the form of the application for continuing certification.

4. Present the required number of academic credits.

5. Pay the $5.00 fee and have the Michigan provisional certificate transferred to the Michigan continuing certificate.

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

* A holder of this certificate who has completed Eastern's curricular requirements in art, industrial arts, library science, music, physical education, recreation or special education is eligible to teach in the area of his/specialty in grades K-12.
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 Teacher Certification.
2. fill out the application as required and return it to the Office of Academic Records and Teacher 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.

OTHER PROFESSIONAL CERTIFICATES

Certificate in Medical Technology
The American Society of Clinical Pathologists awards a certificate for registration as a medical technologist upon successful completion of the medical technology curriculum and the successful completion of the national examination conducted by the Board of Registry of Medical Technologists.

Certificate in Occupational Therapy
The American Occupational Therapy Association issues a certificate in occupational therapy upon successful completion of the occupational therapy curriculum and the successful completion of the board examinations administered by the American Occupational Therapy Association. This certificate qualifies the holder for professional registration with The American Occupational Therapy Association.

Certificate in Dietetics
The American Dietetic Association issues a certificate 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.

Licensure in Nursing
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. This examination is given at times and places specified by the State Board of Nursing, usually three times 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 Licensure Examination.
CENTER OF EDUCATIONAL RESOURCES

Director and Professor: Fred Blum
Associate Director and Associate Professor: Pamela W. Reeves
Associate Director, Head of Media Services, and Assistant Professor: LaVerne W. Weber
Assistant Director for Technical Services and Associate Professor: Eugene A. Holtman
Professor: Albert P. Marshall, assistant social sciences librarian.
Associate Professors: Leona P. Berry, archivist and special collections librarian; Hannelore B. Delgado, coordinator, education and psychology division; Grace K. Maxfield, coordinator, catalog division; Carol E. Selby, coordinator, humanities division.
Assistant Professors: Ann Andrew, assistant education and psychology librarian; Sarell W. Beal, assistant social sciences librarian; Mary C. Beck, documents librarian; Mary J. Bolner, assistant social sciences librarian; Troy V. Brazell, assistant humanities librarian; Haydee M. Cabrera, assistant science and technology librarian; Nelly E. Doll, assistant science and technology librarian; Margaret K. Eide, coordinator, social sciences division; Walter Fishman, manager, audio-visual unit, media services; Sibylia M. Gibson, assistant catalog librarian; Ruth A. Gray, circulation librarian; Joanne J. Hansen, coordinator, science and technology division; Hide I. Ikehara, assistant catalog librarian; Jessamine S. Kallenbach, coordinator, humanities librarian; Cecil R. McLeod, coordinator, book and card preparation division; Twyla M. Mueller, coordinator, acquisitions division; Richard G. Oltnmanns, coordinator of production services, media services; Frances H. Saupe, assistant coordinator, acquisitions division; Elma M. Natt, assistant science and technology librarian; Helen M. Wilkinson, assistant catalog librarian.
Instructors: Margaret E. Best, instructional materials center librarian; Ronald P. Colman, assistant social sciences librarian; J. Ronda Glikin, assistant humanities librarian; Keith J. Stanger, orientation librarian.
Director, Project LOEX: Carolyn Kirkendall

A Library Orientation Office (Room 2171) 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 lifelong learning after their formal education has been completed.

Media services 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 Audio-Visual 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 and maintains the Listening Room, which is equipped for individual and group listening to phonorecords, tapes, cassettes and other audio materials; the Preview Rooms for viewing films and other video materials; and the pool of audio-visual equipment for checkout and use. Charts, graphs, photographs, slides, mounted and laminated materials, and overhead visuals are produced.

The Television Center in Ford Hall is responsible for television and film production and for television distribution over the closed circuit Campus Instructional Television System. Television facilities include two production studios, a master control room, a distribution system including 17 University buildings, and portable recording units for checkout and use by faculty members and students.

Engineering helps plan, install and maintain audio and video equipment and systems.

Media resources include some 1,000 films, 5,000 filmstrips, 6,500 recordings, 300 audio tapes, and more than 2,200 hours of video tape recordings.

The Center of Educational Resources includes library services and media services to complement the classroom as important elements in the learning experience.

Library services are housed in the University Library building. Organized on a subject divisional system, the library collection (including books, bound and current periodicals, and microforms) is 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, and University archives and special collections in the social sciences division. The University Library is a partial depository for United States government publications. These, as well as some state and municipal documents, are in the Documents Section, social sciences division. The collection numbers more than 400,000 volumes, including documents, and 200,000 micro-forms.

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.
PROGRAMS OF STUDY.
PROGRAMS OF STUDY

Eastern Michigan University offers a wide range of programs of study, which are described in this section of the catalog. This rich variety of programs is important to students as they select a university or as they clarify or modify their academic plans, once they are attending school. Therefore all programs of study (all curriculums, majors and minors) are presented alphabetically in this section of the catalog. This arrangement should make it easy for students to find what they want or to browse in search of some program to match their interests. Later in the catalog, under the colleges and their departments, are the descriptions of the individual courses that are offered.

As an aid in finding the programs that are offered, the following list of “Fields of Study” attempts to be comprehensive. For students who look up their interests, it shows what programs offered by Eastern Michigan University might fall within that area. In some cases, such as “accounting,” there is a major offered in precisely that field. In other areas, such as “ecology” or “banking,” it gives several suggestions of programs in that general area which might perhaps meet the students’ needs.

The mere inclusion of a field of study in this list is not a guarantee that students will find a program in that exact field. Students should carefully review the program descriptions and are advised to discuss them with a knowledgeable academic adviser or counselor.

If students do not find a listing for their area of interest, an inquiry to the Academic Services Center (487-2170) may provide additional help and suggestions. An adviser at the center may also explain the Individualized Interdisciplinary Concentration as an alternative for some students who qualify to plan their own programs of study. See page 93.

FIELDS OF STUDY

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  Finance
  General Business
  Insurance
  Management
  Marketing
  Production Systems Analysis
  Shopping Center Management

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T

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Elementary Education (Early and Later)
Secondary Education (Junior-Senior High School)
Special Education
Art Education
Business Education
Consumer and Home Economics Education
Dance
Industrial Education
Library Science (School Librarians)
Music
Physical Education
Recreation
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DEPARTMENT PREFIXES

Throughout the programs of study given in this section and in the course descriptions and prerequisites in the next section, 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, if it differs from the department.

DEPT.  DEPARTMENT NAME/ PREFIX  SUBJECT AREA

ACC  Accounting (Accounting and Finance Dept.)  DEPAC

ADS  Administrative Services (Administrative Services and Business Education)  DEPADM

AMU  Applied Music (Music)  DEPAMU

ANT  Anthropology (Sociology Dept.)  DEPANT

AST  Astronomy (Physics and Astronomy Dept.)  DEPAST

BED  Business Education (Administrative Services and Business Education)  DEPBED

BIO  Biology  DEPBIO

BOT  Botany (Biology Dept.)  DEPBOT

BSP  Afro-American Studies  DEPBSP

CEN  Courses in English (Foreign Languages Dept.)  DEPCEN

CHM  Chemistry  DEPCHM

CUR  Curriculum and Instruction  DEPCRUR

ECE  Early Childhood Education (Curriculum and Instruction Dept.)  DEPECE

ECO  Economics  DEPECO

EDL  Educational Leadership  DEPEDL

EDM  Educational Media (Curriculum and Instruction Dept.)  DEPEDM

EDP  Educational Psychology  DEPEDP

EDU  Student Teaching  DEPEDU

ENG  English  DEPENG

ESC  Elementary Science (Biology Dept.)  DEPESC

FA  Fine Arts (Art Dept.)  DEPFA

FIN  Finance (Accounting and Finance Dept.)  DEPPIN

FLA  Foreign Language  DEPFLA

FRN  French (Foreign Languages Dept.)  DEPFRN

G&C  Guidance and Counseling  DEPG&C

GEO  Geography and Geology  DEPGEO

GER  German (Foreign Languages Dept.)  DEPGER

HEC  Home Economics  DEPHEC

HIS  History  DEPHIS

HUM  Humanities  DEPHUM

IED  Industrial Education  DEPIED

INS  Insurance (Accounting and Finance Dept.)  DEPINS

LIT  Literature (English Language and Literature Dept.)  DEPLIT

MDT  Medical Technology  DEPMDT

MGT  Management  DEPMGT

MKT  Marketing  DEPMKT

MS  Military Science  DEPMS

MTH  Mathematics  DEPMTH

MUS  Music  DEPMUS

NUR  Nursing  DEPNUR

ORI  Operations Research and Information Systems  DEPORI

OT  Occupational Therapy  DEPOT

PEC  Physical Education Activity—Coed  DEPEC

PED  Physical Education (Health, Physical Education, Recreation and Dance Dept.)  DEPED

PEM  Physical Education Activity—Men  DEPEM

PEP  Physical Education Activity— Majors  DEPEP

PEW  Physical Education Activity—Women  DEPEW

PHI  Philosophy (History and Philosophy Dept.)  DEPHI

PHY  Physics  DEPHY

PLS  Political Science  DEPLS

PSY  Psychology  DEPSY

RDG  Reading (Curriculum and Instruction Dept.)  DEPRDG

RES  Real Estate (Accounting and Finance Dept.)  DEPRES

SEI  Special Education—Emotionally Impaired  DEPSEI

SFD  Social Foundations of Education  DEPSFD

SGN  Special Education—General  DEPSGN

SHI  Special Education—Hearing Impaired  DEPSHI

SLD  Special Education—Learning Disabilities  DEPSLD

SLI  Special Education—Speech and Language Impaired  DEPSLI

SMI  Special Education— Mentally Impaired  DEPSMI

SOC  Sociology  DEPSOC

SPH  Speech and Dramatic Arts  DESPH

SPI  Special Education—Physically and Otherwise Impaired  DEPSPI

SPN  Spanish  DEPSPN

SVI  Special Education—Visually Impaired  DEPSVI

SWK  Social Work  DEPSWK

WMS  Women’s Studies  DEPWMS

ACCOUNTING

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).

<table>
<thead>
<tr>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>24</td>
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<th>Required</th>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>340 Intermediate Accounting</td>
<td>3</td>
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<tr>
<td>341 Intermediate Accounting</td>
<td>3</td>
</tr>
<tr>
<td>342 Managerial Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>344 Tax Accounting</td>
<td>3</td>
</tr>
<tr>
<td>445 Auditing</td>
<td>3</td>
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</table>

<table>
<thead>
<tr>
<th>Elective Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>304 Law of Business Enterprises</td>
<td>3</td>
</tr>
<tr>
<td>343 Advanced Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>346 Governmental Accounting</td>
<td>3</td>
</tr>
<tr>
<td>348 Practicum in Accounting</td>
<td>3</td>
</tr>
</tbody>
</table>

**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:

<table>
<thead>
<tr>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>21</td>
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<table>
<thead>
<tr>
<th>Required</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>240 Principles of Accounting</td>
<td>3</td>
</tr>
<tr>
<td>241 Principles of Accounting</td>
<td>3</td>
</tr>
<tr>
<td>303 Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>340 Intermediate Accounting</td>
<td>3</td>
</tr>
<tr>
<td>344 Tax Accounting</td>
<td>3</td>
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</table>

<table>
<thead>
<tr>
<th>Elective Courses</th>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>215 Computers in Business</td>
<td>3</td>
</tr>
<tr>
<td>341 Intermediate Accounting</td>
<td>3</td>
</tr>
<tr>
<td>342 Managerial Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>343 Advanced Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>346 Governmental Accounting</td>
<td>3</td>
</tr>
<tr>
<td>444 Advanced Tax Accounting</td>
<td>3</td>
</tr>
<tr>
<td>446 Financial Information Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

**ADMINISTRATIVE SERVICES**

Administered by the Administrative Services and Business Education Department

**Careers:**
- legal assistant
- administrative secretary
- certified professional secretary
- office administrator
- management trainee
- word processing supervisor
- legal secretary

**Major:** Administrative Services: Legal Assistant

**Administrative Services: Office Administrator**

**Administrative Services: Executive Secretary**

**Degree:** Bachelor of Business Administration

In addition to the careers listed above, men and women who complete this professional program should find many other career opportunities open to them.

All majors in this program must complete the curriculum requirements in business administration as presented on page 57, plus 24 hours as presented below:

**Legal Assistant**

<table>
<thead>
<tr>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>24</td>
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<table>
<thead>
<tr>
<th>Required</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>304 Enterprise Law</td>
<td>3</td>
</tr>
<tr>
<td>399 Office Administration</td>
<td>3</td>
</tr>
<tr>
<td>411 Law Office Documents and Procedures</td>
<td>3</td>
</tr>
<tr>
<td>412 Court Documents and Procedures</td>
<td>3</td>
</tr>
<tr>
<td>413 Legal Research</td>
<td>3</td>
</tr>
<tr>
<td>Business Electives</td>
<td>9</td>
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</tbody>
</table>
AFRO-AMERICAN STUDIES

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

**Required Courses**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>Major Concentration</td>
<td>24</td>
</tr>
<tr>
<td>Required</td>
<td></td>
</tr>
<tr>
<td>222 Office Simulation</td>
<td>4</td>
</tr>
<tr>
<td>384 Personnel Administration</td>
<td>3</td>
</tr>
<tr>
<td>386 Organization Theory and Development</td>
<td>3</td>
</tr>
<tr>
<td>390 Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>395 Office Administration</td>
<td>3</td>
</tr>
<tr>
<td>Business Electives</td>
<td>8</td>
</tr>
</tbody>
</table>

**Executive Secretary**

Semester Hours

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Concentration</td>
<td>24</td>
</tr>
<tr>
<td>Required</td>
<td></td>
</tr>
<tr>
<td>222 Office Simulation</td>
<td>4</td>
</tr>
<tr>
<td>325 Shorthand Transcription</td>
<td>3</td>
</tr>
<tr>
<td>326 Secretarial Procedures</td>
<td>3</td>
</tr>
<tr>
<td>395 Office Administration</td>
<td>3</td>
</tr>
<tr>
<td>Plus one of the following:</td>
<td></td>
</tr>
<tr>
<td>A. Administrative Secretary</td>
<td>11</td>
</tr>
<tr>
<td>415 Records Administration</td>
<td>2</td>
</tr>
<tr>
<td>424 Calculator Applications</td>
<td>3</td>
</tr>
<tr>
<td>Business Electives</td>
<td>6</td>
</tr>
<tr>
<td>B. Legal Secretary</td>
<td>11</td>
</tr>
<tr>
<td>304 Enterprise Law</td>
<td>3</td>
</tr>
<tr>
<td>411 Law Office Documents and Procedures</td>
<td>3</td>
</tr>
<tr>
<td>412 Court Documents and Procedures</td>
<td>3</td>
</tr>
<tr>
<td>Business Electives</td>
<td>2</td>
</tr>
</tbody>
</table>

The Executive Secretary minor can be found on page 127.

II. Communicative Arts Electives (9 semester hours)

**AFRO-AMERICAN STUDIES**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>202 Black Social Movements 1860–1890s</td>
<td>3</td>
</tr>
<tr>
<td>203 Blacks in the City</td>
<td>3</td>
</tr>
<tr>
<td>304 The African Diaspora and the Black Experience</td>
<td>3</td>
</tr>
</tbody>
</table>

**ART**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>222 African and Afro-American Art</td>
<td>3</td>
</tr>
<tr>
<td>420 History of Primitive Art</td>
<td>3</td>
</tr>
</tbody>
</table>

**ENGLISH**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>260 Afro-American Literature</td>
<td>3</td>
</tr>
</tbody>
</table>

**DRAMATIC ARTS**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>101 Black Theatre: An Introduction</td>
<td>3</td>
</tr>
<tr>
<td>201 Black Theatre: Creative Problems</td>
<td>3</td>
</tr>
</tbody>
</table>

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

**ANTHROPOLOGY**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>236 People of Africa</td>
<td>3</td>
</tr>
<tr>
<td>249 Peoples and Cultures of the Caribbean</td>
<td>3</td>
</tr>
<tr>
<td>336 Social and Cultural Change</td>
<td>3</td>
</tr>
</tbody>
</table>

**ECONOMICS**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>320 Labor Economics</td>
<td>3</td>
</tr>
<tr>
<td>321 Black Workers and the Labor Market</td>
<td>3</td>
</tr>
<tr>
<td>432 Urban Economics</td>
<td>3</td>
</tr>
</tbody>
</table>

**GEOGRAPHY**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>322 Geography of Africa</td>
<td>3</td>
</tr>
<tr>
<td>332 Urban Geography</td>
<td>3</td>
</tr>
</tbody>
</table>

**HISTORY AND PHILOSOPHY**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>103 History of Non-Western Civilization</td>
<td>3</td>
</tr>
<tr>
<td>315 History of Black Americans</td>
<td>3</td>
</tr>
<tr>
<td>365 The Old South</td>
<td>3</td>
</tr>
<tr>
<td>377 History of Sub-Saharan Africa</td>
<td>3</td>
</tr>
</tbody>
</table>

**POLITICAL SCIENCE**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>372 Government and Politics of Sub-Saharan Africa</td>
<td>3</td>
</tr>
</tbody>
</table>

**PSYCHOLOGY**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>340 Psychological Perspectives on Prejudice and Discrimination</td>
<td>3</td>
</tr>
</tbody>
</table>

**SOCIOLGY**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>214 Racial and Cultural Minorities</td>
<td>3</td>
</tr>
<tr>
<td>306 The Urban Community</td>
<td>3</td>
</tr>
<tr>
<td>309 Culture and Personality</td>
<td>3</td>
</tr>
</tbody>
</table>

**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 could serve 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 p. 93 for further information.

**ANTHROPOLOGY**

*(Bachelor of Arts or Bachelor of Science Degree)*

Adviser Chairman: Allen Ehrlich

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**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>135 Introduction to Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>345 Field Methods in Community Studies</td>
<td>3</td>
</tr>
<tr>
<td>439 Anthropological Theory</td>
<td>3</td>
</tr>
</tbody>
</table>

At least one course at the 400 level (Areal 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

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 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:
FA 222 African and Afro-American Art
FA 420 History of Primitive Art
ECO 385 Economic Development
CEO 331 Paleontology
CEO 360 Cultural Geography
HIS 103, 201, 301, 302, 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
SPH 400 Phonetics and Dialects of Spoken English

• Minor in Anthropology (20 semester hours)
Non-teaching

Semester Hours
135 Introduction to Cultural Anthropology ............... 3
One 200 level anthropology course ....................... 3
One 300 level anthropology course ....................... 3
439 Anthropological Theory .................................. 3
Electives ...................................................................... 8

In addition to courses in cultural anthropology, students may choose two of the following as part of their electives:
SOC 214 Racial and Cultural Minorities
SOC 250 Elementary Social Statistics
or any 300 or 400 level Sociology course.

APPLIED SCIENCE CURRICULUM

BACHELOR OF ARTS OR

BACHELOR OF SCIENCE DEGREE

Adviser Chairman, James Barnes
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 35. 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 I 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.

Semester Hours

Group I Language ............................................ 6–9
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 ....................... 69–71

Required Courses

Chemistry
131 General Chemistry I .................................... 5
132 General Chemistry II .................................. 4
241 Materials Science ........................................ 3
281 Quantitative Analysis .................................... 4

Mathematics
120 Calculus I .................................................. 4
121 Calculus II .................................................. 4
122 Elementary Linear Algebra ............................ 2
223 Multivariable Calculus .................................. 4
237 Computer Programming and Numeric Methods .................................................................. 3

Physics
223 Mechanics, Sound and Heat ............................ 5
224 Electricity and Light ...................................... 5
270 Introduction to Modern Physics ......................... 3
272 Modern Physics Laboratory ............................. 1
456 Electronics for Scientists ................................. 4

Additional courses are required for a major.
Select one group ................................................. 18–20

• Chemistry
371 Organic Chemistry ........................................ 3
372 Organic Chemistry ........................................ 3
373 Organic Chemistry Laboratory ......................... 2
461 Physical Chemistry ....................................... 3
462 Physiochemical Measurements ......................... 2

**Electives ......................................................... 7

Mathematics
325 Differential Equations and Vector Analysis ......................................................... 3
425 Mathematics for the Scientists .......................... 3

**Electives ......................................................... 13

Physics
430 Intermediate Mechanics I ................................. 3
452 Electrical Measurements ................................ 4
471 Nuclear Physics ............................................. 4

One of the following laboratory courses:
432 Mechanics Laboratory .................................... 1
442 Optics Laboratory ......................................... 1

Electives ............................................................ 6

*Students wishing to become professional chemists, please see Professional Curriculum in Chemistry, page 62.
**Electives must have approval of this department. Electives in physics must come from physics courses numbered 300–400.
Group III Social Sciences ........................................ 9-12
One course in American government from:
  112 American Government ........................................ 3
  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 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 VI Practical Arts ........................................... 6
  122 Technical Drawing ............................................. 3
  223 Descriptive Geometry ......................................... 3
Group VII Physical Education and Health .................. 4
  Physical education activity courses ............................. 4
Note: Two semester hours of military science
may be applied toward this requirement.

Free electives ....................................................... 17-10
Total ................................................................. 124

PRE-ARCHITECTURE CURRICULUM

Adviser-Chairman, Jerald A. Griess
Industrial Technology and Industrial Education Department

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

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>First Semester</td>
</tr>
<tr>
<td></td>
<td>121 English Compos.</td>
</tr>
<tr>
<td>3</td>
<td>120 Calculus I</td>
</tr>
<tr>
<td>4</td>
<td>101 Rome and America (Humanities)</td>
</tr>
<tr>
<td>6</td>
<td>123 Drawing I</td>
</tr>
<tr>
<td>3</td>
<td>Second Semester</td>
</tr>
<tr>
<td>16</td>
<td>121 Calculus II</td>
</tr>
<tr>
<td></td>
<td>122 American Studies (Humanities)</td>
</tr>
<tr>
<td>3</td>
<td>201 Principles of Economics I</td>
</tr>
<tr>
<td>3</td>
<td>&quot;122 Technical Drawing</td>
</tr>
<tr>
<td>3</td>
<td>Physical education activity or military science</td>
</tr>
<tr>
<td>1</td>
<td>Electives</td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

*Substitute 128 Architectural Drawing if student has had high school mechanical drawing or architectural drawing.

202 Principles of Economics II .......... 3
128 Architectural Drawing ............... 3
Physical education activity or military science ........ 1
Electives ................................................. 5

Suggested Electives:
  SOC 105 Introductory Sociology .......... 3
  FA 107 Art History Survey I ............. 3
  ANT 135 Introduction to Cultural Anthropology .... 3
  BOT 209 Ornamental Plants ............... 2
  GEO 223 Weather and Climate ............. 3
  MTH 237 Computer Programming .......... 3
  GEO 327 Soil Science ...................... 2
  IED 331 Industrial Computer Graphics .... 3

AREA STUDIES

(Non-Teaching)

Adviser-Chairperson, Jiu-Hwa L. Upshur
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 sem-
ster 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 soci-
ology).

2. Asia-Far East (Minor in one of the following: anthropol-
ygy, economics, geography, history, political science or soci-
ology).

3. Latin America (Minor in one of the following: Spanish
culture, Spanish language, Spanish literature, anthropology,
economics, geography, history, political science, or soci-
ology).

4. Middle East and North Africa (Minor in one of the fol-
lowing: anthropology, economics, geography, history, politi-
ical science or sociology).

5. Soviet Union (Minor in one of the following: econom-
ic, geography, history, political science or sociology).

The course lists give required and/or elective courses for
each area 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)

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Basic Courses</td>
</tr>
<tr>
<td>6</td>
<td>Economics 201, 202 Principles of Economics I and II</td>
</tr>
<tr>
<td>3</td>
<td>Geography 110 World Regions</td>
</tr>
</tbody>
</table>

(Note: History 102 History of Western Civilization, 103 History of Non-Western Civilization and Political Science 112
American Government to be taken as Group III requirements for graduation.)
Area Requirements ........................................... 15
ANT 236 Peoples of Africa ............................. 3  
ECO 385 Economic Development ..................... 3  
GEO 322 Geography of Africa ........................ 3  
HIS 377 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  
  ART 222 African and Afro-American Art .... 3  
  ECO 366 Economics of Transportation .... 3  
  ECO 370 Comparative Economics Systems ... 3  
  GEO 574 Problems, Sub-Saharan Africa .... 2  
  HIS 342 North Africa 1798 to Present .... 3  
  HIS 542 Studies in 20th Century Africa .... 3  

Area Electives .................................. 6

Area Studies Major: Asia-Far East (30 hours)

Area Requirements ........................................... 11  
GEO 203 Geography of Asia ............................ 3  
*HIS 371 Far East to 1800 or  
  *HIS 373 History of Modern China or  
  *HIS 374 History of Modern Japan ........... 3  
  HIS 557 Intellectual History of the Far East .. 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  
  ART 421 History of Oriental Art .............. 3  
  ECO 385 Economic Development ............... 3  
  ECO 507 Case Studies in Economic Develop-  
  ment (when on the Far East) ................. 3  
  HIS 301: Religions of South and East Asia ... 3  
  *HIS 371 Far East to 1800 or  
  *HIS 373 History of Modern China or  
  *HIS 374 History of Modern Japan .......... 3  
  HIS 554 Studies in Modern India ............ 3  
  HIS 558 Diplomatic History of the Far East ... 2  

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)

Basic Courses ................................................ 9  
  Economics 201, 202 Principles of Economics I and II .................. 6  
  Geography 110 World Regions ................... 3  
(Note: History 101 and 102 History of Western Civilization,  
  and Political Science 112 American Government to be taken as  
  Group III requirements for graduation.)

Area Electives .............................................. 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 Anthropology 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  
  GEO 321 Geography of Latin America .......... 3  
  HIS 355 Latin America: Colonial Period ...... 3  
  HIS 356 Latin America: National Period ...... 3  
  HIS 357 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 Anthropology and Non-Primitive Societies .......... 3  
  ANT 336 Social and Cultural Change .......... 3  
  ECO 370 Comparative Economic Systems ....... 3  
  GEO 541 South American Lands ................ 2  
  GEO 542 Middle America and Caribbean Lands ............. 2  
  HIS 561 Studies in Latin-American History I ........... 2  
  HIS 562 Studies in Latin-American History II ........... 2  
  PLS 541 Studies in Latin America ............... 3  
  SPN 302 Culture and Civilization of Latin 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 446 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  

*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 Major: Middle East and North Africa (30 hours)

**Semester Hours**

<table>
<thead>
<tr>
<th>Basic Courses</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics 201, 202 Principles of Economics I and II</td>
<td>6</td>
</tr>
<tr>
<td>Geography 110 World Regions</td>
<td>3</td>
</tr>
</tbody>
</table>

*(Note: History 102 History of Western Civilization, 103 History of Non-Western Civilization and Political Science 112 American Government to be taken as Group III requirements for graduation.)*

<table>
<thead>
<tr>
<th>Area Requirements</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 385 Economic Development</td>
<td>3</td>
</tr>
<tr>
<td><em>HIS 340 Middle East and North Africa to 1798</em> or <em>HIS 341 History of Middle East 1798 to Present</em> or <em>HIS 342 North Africa 1798 to Present</em></td>
<td>3</td>
</tr>
<tr>
<td>PLS 371 Government and Politics of the Middle East</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area Electives</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twelve hours to be chosen from the following:</td>
<td></td>
</tr>
<tr>
<td>ANT 336 Social and Cultural Change</td>
<td>3</td>
</tr>
<tr>
<td>ART 212 History of Ancient Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 402 History of Primitive Art</td>
<td>3</td>
</tr>
<tr>
<td>ECO 585 Economic Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>ENG 351 Folk Literature: Gods and Heroes</td>
<td>3</td>
</tr>
<tr>
<td>HIS 201 Comparative Study of Religion</td>
<td>3</td>
</tr>
<tr>
<td>HIS 302 Near Eastern and Western Religions</td>
<td>3</td>
</tr>
<tr>
<td><em>HIS 340 Middle East and North Africa to 1798</em> or <em>HIS 341 History of Middle East 1798 to Present</em> or <em>HIS 342 North Africa 1798 to Present</em></td>
<td>3</td>
</tr>
<tr>
<td>HIS 543 Nationalism and Modernization in Middle East and North Africa</td>
<td>3</td>
</tr>
<tr>
<td>MUS 536 World Music I</td>
<td>2</td>
</tr>
</tbody>
</table>

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)

**Semester Hours**

<table>
<thead>
<tr>
<th>Basic Courses</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics 201, 202 Principles of Economics I and II</td>
<td>6</td>
</tr>
<tr>
<td>Geography 110 World Regions</td>
<td>3</td>
</tr>
</tbody>
</table>

*(Note: History 101 and 102 History of Western Civilization and Political Science 112 American Government to be taken as Group III requirements for graduation.)*

<table>
<thead>
<tr>
<th>Area Requirements</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 472 The Soviet Economy</td>
<td>3</td>
</tr>
<tr>
<td>GEO 359 Geography of U.S.S.R.</td>
<td>3</td>
</tr>
<tr>
<td>HIS 344 Russia Since 1855</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area Electives</th>
<th>6</th>
</tr>
</thead>
</table>

Six hours to be chosen from the following:

| ECO 370 Comparative Economics Systems | 3 |
| GEO 559 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 |

**ART**

**Curriculum for the Bachelor of Fine Arts Degree**

Adviser Chairman, Kingsley M. Calkins

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 35. 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 course 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.

**Semester Hours**

<table>
<thead>
<tr>
<th>Group I Language</th>
<th>8–9</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course in English composition or, if eligible, a foreign language course.</td>
<td></td>
</tr>
<tr>
<td>One course in fundamentals of speech.</td>
<td></td>
</tr>
<tr>
<td>One elective course in English language, in a foreign language, in speech, or in library science (Group I).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group II Science and Mathematics</th>
<th>10–11</th>
</tr>
</thead>
<tbody>
<tr>
<td>(No more than two courses in one department.)</td>
<td></td>
</tr>
<tr>
<td>One laboratory science course.</td>
<td></td>
</tr>
<tr>
<td>A second laboratory science course or a course in mathematics.</td>
<td></td>
</tr>
<tr>
<td>One elective course in Group II.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group III Social Sciences</th>
<th>9–12</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course in American government from:</td>
<td></td>
</tr>
<tr>
<td>112 American Government or 202 State and Local Government</td>
<td>3</td>
</tr>
</tbody>
</table>
Curriculum for Teachers of Art

Bachelor of Art Education Degree

**Elementary, Secondary Provisional Certificate**

Adviser Chairman, Kingsley Calkins

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 35. 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.

*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 dean of Academic Records and Teacher Certification regarding special requirements. Include 101 Functional Mathematics in Group II courses.

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.

**Semester Hours**

| Group I Language | 8–9 |
| Group II Science and Mathematics | 10–12 |
| Group III Social Sciences | 9–12 |

| Semester Hours | Group IV Education | 20 |
| 302 Educational Psychology | 3 |
| 303 Principles of Teaching | 3 |
| 418 Seminar in Education | 2 |
| 416, 417 Teaching of Art | 4 |
| 492 or 495, 496 Student Teaching | 8 |

| Group V Fine Arts | 54 |
| 107 Art Survey I | 3 |
| 108 Art Survey II | 3 |
| 122 Two Dimensional Design | 3 |
| 123 Drawing I | 3 |
| 124 Drawing II | 3 |
| 210 Life Drawing | 3 |
| 215 History of 19th Century Art | 3 |
| 216 History of Contemporary Art I | 3 |
| 231 Three Dimensional Design | 3 |
| 235 Textiles | 3 |
| 301 Graphic Design | 3 |
| 305 Printmaking | 3 |
| 307 Ceramics | 3 |
| 310 Sculpture | 3 |
| 313 Painting | 3 |

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

**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 V courses below automatically completed in Group V courses below).

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).

A second laboratory science course or a course in mathematics.

101 General Psychology.

Students completing the above 54 hour concentration on this curriculum will have satisfied all major and minor requirements for graduation.
314 Water Color ................................ 3
320 Jewelry ..................................... 3
Electives ........................................ 3

Group VII Physical Education and Health .......... 4
Physical education activity courses .............. 4
Note: Two semester hours of military science may be applied towards this requirement.

Free electives .................................. 10–4

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**

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

**Major (30 semester hours)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required courses</td>
<td>21</td>
</tr>
<tr>
<td>107 Art History Survey I</td>
<td>3</td>
</tr>
<tr>
<td>108 Art History Survey II</td>
<td>3</td>
</tr>
<tr>
<td>122 Two Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>123 Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>124 Drawing II</td>
<td>3</td>
</tr>
<tr>
<td>231 Three Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>305 Printmaking or</td>
<td></td>
</tr>
<tr>
<td>310 Sculpture or</td>
<td></td>
</tr>
<tr>
<td>313 Painting</td>
<td>3</td>
</tr>
<tr>
<td>Elect six hours from the following:</td>
<td></td>
</tr>
<tr>
<td>210 Life Drawing</td>
<td>3</td>
</tr>
<tr>
<td>235 Textiles</td>
<td>3</td>
</tr>
<tr>
<td>306 Printmaking</td>
<td>3</td>
</tr>
<tr>
<td>311 Sculpture</td>
<td>3</td>
</tr>
<tr>
<td>413 Painting</td>
<td>3</td>
</tr>
<tr>
<td>419 Life Drawing</td>
<td>3</td>
</tr>
<tr>
<td>Elect three hours from the following:</td>
<td></td>
</tr>
<tr>
<td>215 History of 19th Century Art</td>
<td>3</td>
</tr>
<tr>
<td>216 History of Contemporary Art 1</td>
<td></td>
</tr>
<tr>
<td>301 Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>307 Ceramics</td>
<td>3</td>
</tr>
<tr>
<td>314 Painting—Watercolor</td>
<td>3</td>
</tr>
<tr>
<td>320 Jewelry</td>
<td>3</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required courses</td>
<td>9</td>
</tr>
<tr>
<td>101 Introduction to Art or 123 Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>122 Two-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>Elect one art history course (108 Art Survey II suggested)</td>
<td>3</td>
</tr>
<tr>
<td>Elect 12 hours from the following:</td>
<td></td>
</tr>
<tr>
<td>124 Drawing II</td>
<td>3</td>
</tr>
<tr>
<td>231 Three-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>235 Textiles</td>
<td>3</td>
</tr>
<tr>
<td>300 Creative Arts</td>
<td>3</td>
</tr>
<tr>
<td>301 Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>314 Painting—Watercolor</td>
<td>3</td>
</tr>
</tbody>
</table>

**Art History Minor (20–21 semester hours)**

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>107 Art Survey I</td>
<td>3</td>
</tr>
<tr>
<td>108 Art Survey II</td>
<td>3</td>
</tr>
<tr>
<td>215 History of 19th Century Art</td>
<td>3</td>
</tr>
<tr>
<td>216 History of Contemporary Art 1</td>
<td>3</td>
</tr>
<tr>
<td>428 Seminar—Modern Art</td>
<td>2</td>
</tr>
<tr>
<td>Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

Students with an art major who elect the art history minor must replace 107, 108, 215, 216 on the major with studio courses. All students planning to complete this minor should be advised by the head of the Art Department.

**ARTS MANAGEMENT CURRICULUM**

(non-teaching)

**BACHELOR OF SCIENCE DEGREE**

Adviser Chairman, Kenneth Stevens

Speech and Dramatic Arts Department

The curriculum provides students with training that qualifies them for careers in an arts management field and prepares them for further study at any of the 18 graduate programs offered throughout the nation.

This program is the only undergraduate program in the field in Michigan and one of two anywhere in the central section of the nation.

Currently strong, the need is expected to grow for well-trained personnel in arts institutions—art galleries, regional theatres, ethnic arts programs, opera companies, dance troupes, university activities and cultural programs, etc. In two hundred communities there are local arts councils, and in all fifty states, state councils exist with professional staffs. Many cities have introduced arts programs into the activities of their recreation departments.

The arts manager not only must develop a variety of managing skills ranging from promotion and advertising to personnel management and cost accounting, but must also maintain a high degree of sensitivity to the aesthetics and the operation requirements of sometimes one, but far more often, a multiplicity of art forms.

The major has been developed in order to provide students with the opportunity to engage in the study of the field of arts management on the undergraduate level. Building on a broad base of fundamentals courses in all the arts, students in the program are able to specialize in any one specific art form or to elect to increase the depth of knowledge of all or a selected group of the arts. In either case the successful completion of the program provides the students with the necessary background in the arts to pursue a career in arts management. A required strong program of minor study in marketing or management in the College of Business is an integral part of the training, guaranteeing the students the background in business concepts and procedures essential to an arts management career.

**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:
Arts Fundamentals: 24-28 semester hours
- Art: 8-9
- Dance: 3-4
- Dramatic Arts: 8-9
- Music: 5-6

Arts Management and the Media: 8 semester hours
- Broadcasting: 3
- Dramatic Arts: 2
- English: 3

Arts Management Internships: 2-4 semester hours
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., Sill Gallery, EMU Dancers, etc.).
Each arts management major will, after approval, work full-time for one semester as a member of the management staff of some approved off-campus arts institution.
Each of the two internships will carry 1-2 semester hours of credit.

Minor
A required cognate minor (21 semester hours) in management or marketing, available in the College of Business for non-business majors, must be completed. No other minor option is permissible.

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 35. 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.

<table>
<thead>
<tr>
<th>Group</th>
<th>Language</th>
<th>Sem. Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group I</td>
<td>English</td>
<td>24-28</td>
</tr>
<tr>
<td></td>
<td>One course in English composition or, if eligible, a foreign language course.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>*215 Journalism</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Speech and Dramatic Arts</td>
<td>2-3</td>
</tr>
<tr>
<td></td>
<td>One course in fundamentals of speech</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>*100 Introduction to Theatre</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>*135 Play Production</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>*343 Broadcast News</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>*452 Theatre Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>*Arts Management Internships</td>
<td>2-4</td>
</tr>
<tr>
<td></td>
<td>*Electives in dramatic arts</td>
<td>2-3</td>
</tr>
</tbody>
</table>

| Group II| Science and Mathematics | 10-12 |
|         | (No more than two courses in any 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: | |
|          | 112 American Government | 3 |
|          | 202 State and Local Government | |

*These courses constitute the arts management major, a major acceptable on the arts management curriculum only.

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. |

| Group V Fine Arts | 12-14 |
| Art | 3 |
| *107 Art History Survey I | 3 |
| *108 Art History Survey II | 3 |
| *Electives in Art | 2-3 |
| Music | 2 |
| *107 Music Appreciation | 2 |
| *Electives in Music | 2-3 |

| Group VI | 21 |
| A minor in marketing or management (College of Business) is required. |

| Group VII Physical Education and Health | 6-7 |
| *Electives in an academic dance course | 2-3 |
| *PEC 161 Beginning Modern Dance | 3 |
| Other physical education activity courses | 3 |
| Note: Two semester hours of military science may be applied to the general activity requirement. |

| Free electives | 33-21 |

| Total | 124 |

**ASTRONOMY**

Adviser Chairman, Jon Wooley
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.

| Required courses | 11 |
| 104 Astronomical Investigations | 1 |
| 205 Principles of Astronomy | 4 |
| 315 Applied Astronomy | 3 |
| 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 223 Mechanics, Sound and Heat and 224 Electricity and Light among these electives. |

*These courses constitute the arts management major, a major acceptable on the arts management curriculum only.

**Economics 201 is a prerequisite for required courses in both the marketing and management minor, one of which is required.
BILINGUAL-BICULTURAL EDUCATION

Adviser Chairman, Raymond Padilla
Department of Foreign Languages

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 ........................................ 3
- 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: ................................................................. 9

- ANT 238 Ethnographic Survey ................................................................. 3
- ENG 302 Modern English Syntax .................................................................. 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 .................................................... 2

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 and C 405 Basic Guidance Concepts and Processes (2 semester hours).

BIOCHEMISTRY
(Non-Teaching)
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
(76 semester hours)

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>131-132 General Chemistry I and II</td>
<td>9</td>
</tr>
<tr>
<td>281 Quantitative Analysis</td>
<td>4</td>
</tr>
<tr>
<td>371-372-373 Organic Chemistry</td>
<td>8</td>
</tr>
<tr>
<td>451-452-453 Biochemistry</td>
<td>8</td>
</tr>
<tr>
<td>461-462-463 Physical Chemistry</td>
<td>8</td>
</tr>
<tr>
<td>Chemistry elective(s) from courses numbered above 300</td>
<td>3</td>
</tr>
<tr>
<td>120-121 Calculus I and II</td>
<td>8</td>
</tr>
<tr>
<td>221 General Botany or 222 General Zoology</td>
<td>4</td>
</tr>
<tr>
<td>301 Genetics</td>
<td>3</td>
</tr>
<tr>
<td>Biology department elective(s) from courses numbered above 300</td>
<td>3</td>
</tr>
<tr>
<td>223 Multivariable Calculus</td>
<td>4</td>
</tr>
<tr>
<td>325 Differential Equations and Vector Analysis</td>
<td>3</td>
</tr>
<tr>
<td>223 Mechanics, Sound, and Heat</td>
<td>5</td>
</tr>
<tr>
<td>224 Electricity and Light</td>
<td>5</td>
</tr>
</tbody>
</table>

Biochemistry Minor (22 semester hours)

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>131-132 General Chemistry I and II</td>
<td>9</td>
</tr>
<tr>
<td>270-271 Organic Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>281 Quantitative Analysis</td>
<td>4</td>
</tr>
<tr>
<td>361 Physical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>362 Physicochemical Measurements</td>
<td>1</td>
</tr>
<tr>
<td>451-452-453 Biochemistry</td>
<td>8</td>
</tr>
<tr>
<td>221 General Botany or 222 General Zoology</td>
<td>4</td>
</tr>
<tr>
<td>301 Genetics</td>
<td>3</td>
</tr>
<tr>
<td>Biology department elective(s) from courses numbered above 300</td>
<td>3</td>
</tr>
<tr>
<td>120 Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>221 or 223 Mechanics, Sound, and Heat</td>
<td>4-5</td>
</tr>
<tr>
<td>222 or 224 Electricity and Light</td>
<td>4-5</td>
</tr>
</tbody>
</table>

General Biochemistry Major and Group Minor
(54 semester hours)

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>131-132 General Chemistry I and II</td>
<td>9</td>
</tr>
<tr>
<td>*270-271 Organic Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>281 Quantitative Analysis</td>
<td>4</td>
</tr>
<tr>
<td>361 Physical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>362 Physicochemical Measurements</td>
<td>1</td>
</tr>
<tr>
<td>451-452-453 Biochemistry</td>
<td>8</td>
</tr>
<tr>
<td>221 General Botany or 222 General Zoology</td>
<td>4</td>
</tr>
<tr>
<td>301 Genetics</td>
<td>3</td>
</tr>
<tr>
<td>Biology department elective(s) from courses numbered above 300</td>
<td>3</td>
</tr>
<tr>
<td>120 Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>221 or 223 Mechanics, Sound, and Heat</td>
<td>4-5</td>
</tr>
<tr>
<td>222 or 224 Electricity and Light</td>
<td>4-5</td>
</tr>
</tbody>
</table>

Areas of Concentration

1. Aquatic Biology ........................................... 20

Adviser Chairman: Dale C. Wallace

320 General Physiology ........................................ 4
410 Limnology .................................................. 3
411 Limnological Methods ..................................... 2
491 or 492 Special Problems in Biology (must be taken concurrently with 496 Practicum) ... 1-2
496 Practicum Aquatic Biology ................................ 3
* A botanical taxonomic field course ......................... 3
* A zoological taxonomic field course ....................... 3
Electives in biology, botany or zoology ...................... 0-1

It is recommended that the student electing this area of concentration plan to complete a minor in botany, chemistry or zoology.

2. Community College Biology Teaching ...................... 20

Chairman: Paul W. Milske

Program Adviser: Dale C. Wallace

301 Genetics .................................................. 3
302 Genetics Lab ............................................... 2
312 Plant Anatomy or 324 Comparative Anatomy ............... 3-4
320 General Physiology ........................................ 4
Taxonomic Field Course (Prerequisite for 420 Ecology) .... 3
420 Ecology .................................................... 3
Electives in biology, botany or zoology ..................... 1-2

It is recommended that the student electing this area of concentration minor in botany, chemistry or zoology.

3. General Biology ............................................. 20

Adviser Chairman: Paul W. Milske

301 Genetics .................................................. 3
320 General Physiology ........................................ 4
One taxonomic field course (prerequisite for BIO 420 or 410) ... 3
420 Ecology or 410 Limnology .................................. 3
Electives ....................................................... at least 7

*Must be approved by an aquatic biology adviser.
Within the 30-hour program, there must be at least seven hours each in botany and zoology. A botany, chemistry or zoology minor is recommended.

A field experience at a biological station is considered essential.

4. Microbiology

Adviser Chairman: Paul A. Volz

201 Genetics .................................. 3
230 General Microbiology Lab .................. 2
231 General Microbiology ........................ 3
442 Microbial Ecology .......................... 3
444 Microbial Physiology ....................... 3
Electives from the following .................... at least 6
304 Mycology .................................. 3
332 Clinical Microbiology ....................... 3
333 Principles of Immunology .................. 2
345 Medical Mycology .......................... 4
360 Parasitology ................................ 3
429 Cell Biology .................................. 3
430 Plant Morphology of the Algae
and Fungi ....................................... 4
451 Freshwater Algae ............................. 3
480 Protozoology .................................. 3

Those electing this area of concentration are urged to min­
or in botany, chemistry, biochemistry, physics or zoology.

5. Physiology

Adviser Chairman: Merlyn C. Minick

320 General Physiology .......................... 4
Two of the following ............................ 6
310 Plant Physiology ............................. 3
327 Vertebrate Physiology ....................... 3
437 Invertebrate Physiology ..................... 3
444 Microbial Physiology ....................... 3
Electives at least ................................ 10
Selected from:
331 General Microbiology ....................... 3
301 Genetics ..................................... 3
304 Mycology ..................................... 3
305 Neuroanatomy ................................ 3
312 Plant Anatomy ................................ 3
323 Animal Embryology .......................... 3
324 Comparative Anatomy ....................... 4
400 Principles of Biological Techniques ......... 1
401 Biological Techniques ....................... 2
404 Mammalian Histology ....................... 3
420 Ecology ....................................... 3
480 Radiation Biology ............................ 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 451 Biochemistry and 452 Biochemistry Lab.

Courses designated as Botanical Taxonomic Field

Courses:
302 Systematic Botany
354 Trees and Shrubs
450 Aquatic Tracheophyta
451 Freshwater Algae
453 Taxonomy and Ecology of Diatoms

Biology Minor (20–24 semester hours)

Required Courses .................................. 10
106 Orientation to Biology .......................... 2
221 General Botany ................................ 4
222 General Zoology ................................ 4
Electives to total at least 20 semester hours ... 10

Note: Two of the four hours for BIO 105, Biology and The
Human Species, may be substituted for BIO 106 on the mi­
or 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 221 Gen­
eral Botany or 222 General Zoology.

No more than four hours of electives may be taken in BIO
491, BIO 492, or BIO 493 Special Problems in Biology.

Students minoring in biology are advised to take 119 Fund­
damentals of Chemistry or 131 General Chemistry I.

An additional four cognate hours of sciences must be com­
pleted to meet North Central Association requirements (24)
for teaching this minor at the junior-senior high level, and
the methods course may be included in that total.

BOTANY

Administered by the 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 sche­
dule of electives chosen from courses in the botany and biol­
ogy 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 sec­
ond minor outside of the Biology Department to satisfy the
current requirements for teacher certification.

BUSINESS ADMINISTRATION
CURRICULUM

Bachelor of Business Administration 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 35. This same page indicates how students
may choose an alternate way of meeting eight of the re­
quired 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 stu-
dents 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 Prin-
ciples of Economics.
After meeting both Basic Studies and curriculum require-
ments, students must then complete enough "free electives"
to total at least the minimum 124 hours required for gradu-

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group I Language</strong></td>
</tr>
</tbody>
</table>
| One course in English Composition or, if eligi-
bile, 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** | 17-18 |
| One laboratory course from the biology, chemis-
try, geography or physics departments | 4-5 |
| 101 General Psychology | 3 |
| *Mathematics (Select Option I or II) | 6 |
| **Option I** |
| 118 Mathematical Analysis for Social Sciences I | 3 |
| 119 Mathematical Analysis for Social Sciences II | 3 |
| ***Option II** |
| 120 Calculus I | 4 |
| 122 Elementary Linear Algebra | 2 |
| 365 Business Statistics I | 3 |

| **Group III Social Science** | 12 |
| One course in history | 3 |
| 112 American Government or 202 State and Local Government | 3 |
| 201, 202 Principles of Economics | 6 |

| **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 VI Practical Arts** | 50-51 |
| Business Administration Core (All 200 and 300
level core courses should be completed by
end of junior year) | 27 |
| 215 Computers in Business | 3 |
| 240 Principles of Accounting | 3 |
| 241 Principles of Accounting | 3 |

*Students planning to complete the mathematics require-
ment 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 having an "B" average in high school mathemat-
ics courses through trigonometry should not elect Option I.
***Students planning to pursue graduate study in busi-
ness administration are encouraged to select Option II. An alter-
native advanced mathematics sequence may be required for
students who have completed three or more years of high
school mathematics with high quality achievement.

| **302 Business Communication** | 3 |
| **303 Legal Environment of Business** | 3 |
| **350 Principles of Finance** | 3 |
| **360 Principles of Marketing** | 3 |
| **382 Introduction to Management** | 3 |
| **490 Business Policy** | 3 |

| **Academic Major (select one)** | 23-24 |
| **Accounting** | (see page 46) |
| **Administrative Services** | (see page 46) |
| **Business Computer Systems** | (see page 59) |
| **Finance** | (see page 93) |
| **General Business** | (see page 87) |
| **Insurance** | (see page 96) |
| **Management** | (see page 100) |
| **Marketing** | (see page 101) |

| **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 pre-
| sented 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 |
| History |
| Mathematics |
| Business Enterprise: Theory and Practice |
| Physical Education or Military Science (ROTC) |

| **Sophomore Year** |
| Government, Economics |
| Psychology |
| Logic, Philosophy or Comparative Religions and Art |
| Accounting, Computers in Business, Business Statistics |
| Physical Education or Military Science |
BUSINESS COMPUTER SYSTEMS

Administered by the 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)

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required:</td>
<td>15</td>
</tr>
<tr>
<td>316 COBOL Programming</td>
<td>3</td>
</tr>
<tr>
<td>317 System Simulation</td>
<td>3</td>
</tr>
<tr>
<td>415 Applied Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>417 Development of Management Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>418 Operations Research</td>
<td>3</td>
</tr>
<tr>
<td>419 Data Base Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>446 (Accounting) Financial Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>Restricted Electives</td>
<td>3</td>
</tr>
<tr>
<td>239 (Mathematics) Assembly and Machine Language Programming</td>
<td>3</td>
</tr>
<tr>
<td>416 Analysis of Computer Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>419 Data Base Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>426 Advanced Structured COBOL Programming</td>
<td>3</td>
</tr>
<tr>
<td>446 (Accounting) Financial Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>Electives in Business Administration</td>
<td>6</td>
</tr>
<tr>
<td>Elective courses for a concentration if desired</td>
<td></td>
</tr>
<tr>
<td>Management Science and Operations Research</td>
<td>3</td>
</tr>
<tr>
<td>390 Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>416 Analysis of Computer Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>419 Data Base Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>465 Business Statistics II</td>
<td>3</td>
</tr>
<tr>
<td>Production Systems</td>
<td>3</td>
</tr>
<tr>
<td>394 Introduction to Production Management</td>
<td>3</td>
</tr>
<tr>
<td>428 Linear Programming</td>
<td>3</td>
</tr>
</tbody>
</table>

**Business Computer Systems Minor** (21 Semester Hours) (a non-teaching minor for non-business majors)

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required:</td>
<td>15</td>
</tr>
<tr>
<td>215 Computers in Business</td>
<td>3</td>
</tr>
<tr>
<td>240 Principles of Accounting</td>
<td>3</td>
</tr>
<tr>
<td>316 COBOL Programming</td>
<td>3</td>
</tr>
<tr>
<td>382 Introduction to Management</td>
<td>3</td>
</tr>
<tr>
<td>415 Applied Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>418 Operations Research</td>
<td>3</td>
</tr>
<tr>
<td>Electives from the following</td>
<td>6</td>
</tr>
<tr>
<td>317 System Simulation</td>
<td>3</td>
</tr>
<tr>
<td>337 (Mathematics) Computer Programming Languages</td>
<td>3</td>
</tr>
<tr>
<td>415 Applied Data Structures</td>
<td>3</td>
</tr>
</tbody>
</table>

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**BUSINESS TEACHER EDUCATION CURRICULUM**

**Bachelor of Business Education Degree**

**Secondary Provisional Certificate**

**Vocational Distributive Education Certificate**

**Vocational Office Education Certificate**

Adviser Chairman, Robert A. Ristau
Administrative Services and Business Education Department

Careers:
- business office education teacher: junior or senior high school
- business distributive education teacher: high school
- teacher coordinator-cooperative education: high school
- community or junior college business teacher

Major: Business Education: Office Education or Distributive Education

Degree: Bachelor of Business Education

Students who complete this professional program find many other careers in business open to them. The combination of a background of course work in business administration plus competencies in teaching make graduates of this program qualified for many positions in business.

In addition to a degree, the student completing this program qualifies for the Michigan Secondary School Provisional Teacher’s Certificate. Vocational certification is possible for those who meet the state’s work-experience requirement.

All majors in Business Teacher Education must complete the general requirements of the Bachelor of Business Education degree.

Group I, II, III, IV and VI courses and requirements are presented below. Within the group VI courses, all students must complete the Business Administration Core and meet the requirements of either the Office Education or the Distributive Education concentration.

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 35. 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.
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
   One laboratory science course from the biology, chemistry, geography or physics departments
   101 General Psychology ................................ 3
   118 Mathematical Analysis for Social Sciences I ................ 3

Group III Social Sciences ................................. 12
   One history course ..................................... 3
   201, 202 Principles of Economics ..................... 6
   Either of the following: ................................ 3
      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 art, music or dramatic arts.

Group IV Education ...................................... 22
   302 Educational Psychology ............................ 3
   303 Principles of Teaching ............................. 3
   340 Introduction to Measurement and Evaluation .............. 2
   416 Seminar in Education ................................ 2
   Methods in business subjects (select two) ................. 4
      364 Methods of Teaching General Business Subjects .............. 2
      365 Methods of Teaching Secretarial Subjects ................ 2
      366 Methods and Materials in Teaching Distributive Education ........ 2
   492 Student Teaching .................................. 8

Group VI Practical Arts ................................ 50
   Business Administration Core ......................... 25
      215 Computers in Business ............................ 3
      240 Principles of Accounting ........................ 3
      241 Principles of Accounting ......................... 3
      302 Business Communication ........................ 3
      303 Legal Environment of Business .................. 3
      350 Principles of Finance ............................. 3
      360 Principles of Marketing .......................... 3
      382 Introduction to Management ........................ 3
      401 Business Internship ................................ 1

Areas of Concentration: Choose Office Education or Distributive Education .......................... 25

Office Education
Required .................................................. 12
   *222 Office Simulation ................................. 4
   224 Calculator Applications: Business and Personal .... 3
   395 Office Administration ............................. 3
   415 Records Administration ............................ 2

Options: Choose one group
   Accounting
   340 Intermediate Accounting ................................ 3
   341 Intermediate Accounting ................................ 3
   344 Tax Accounting ...................................... 3
   Data Processing
   316 COBOL Programming .................................. 3
   415 Applied Data Structures ............................ 3
   417 Development of Management Information Systems .... 3
   Shorthand
   *226 Shorthand Dictation ................................ 3
   227 Shorthand Speedbuilding ................................ 3
   325 Shorthand Transcription ................................ 3

Business Electives ....................................... 4

Distributive Education
Required courses ........................................ 11
   *121 Typing Applications ................................ 2
   261 Contemporary Selling ................................ 3
   363 Retailing .......................................... 3
   368 Marketing Strategy .................................. 3

Restricted Electives ..................................... 8–9
   224 Calculator Applications: Business and Personal .... 3
   365 Buyer Behavior ...................................... 3
   395 Office Administration ................................ 3
   415 Records Administration ............................. 2
   461 Sales Management ................................... 3

Business Electives ....................................... 6–5

Group VII Physical Education and Health ............ 4
   Physical education activity courses .................... 4
   Note: Two semester hours of military science may be applied toward this requirement.

Electives .................................................. 20–6

Total ...................................................... 124

Students completing the above curriculum will have satisfied all major and minor requirements for graduation.

Students who have successfully completed this program may qualify for vocational endorsement of their Provisional Secondary Certificate. Such endorsement can be obtained for either office or distributive education if 4,000 hours of related recent work experience can be shown. A student interested in such endorsement should discuss with his adviser the possibility of enrollment in certain elective courses to maximize the work experience credit.

*Students having deficiencies in elementary typewriting may enroll in BED 120. Students having deficiencies in elementary shorthand may enroll in one of the beginning shorthand courses (BED 225 or BED 223). Students with proficiency equivalent to course requirements in BED 121, Typewriting Applications, or in one of the shorthand courses, may test out of those courses or have the course waived and a substitute course approved for their programs.
Minor in Business Teacher Education (20 semester hours)

Students with a major in some other area of teaching can earn a business education minor by completing one of the concentrations shown below. In addition, one or more methods courses in business education subjects (364, 365, or 366) shall be added to the program.

Students with a non-teaching major in some area of business administration can earn a teaching certificate by completing two of the areas of concentration shown below and two business education methods courses. In addition, the Group IV education courses listed in the Business Teacher Education Curriculum above must be completed. Students with non-teaching majors in an area other than business administration should consult with the department head prior to pursuing a minor in business teacher education.

**Accounting**
- 240 Principles of Accounting ......... 3
- 241 Principles of Accounting ......... 3
- 303 Legal Environment of Business .... 3
- 340 Intermediate Accounting ......... 3
- 341 Intermediate Accounting ......... 3
- 344 Tax Accounting ......... 3

**Distributive Education**
- 261 Contemporary Selling ......... 3
- 360 Principles of Marketing ......... 3
- 363 Retailing ......... 3
- 368 Marketing Strategy ......... 3
- 369 Advertising ......... 3
- 401 Business Internship ......... 1

**General Business**
- 240 Principles of Accounting ......... 3
- 303 Legal Environment of Business .... 3
- 304 Law of Business Enterprise .... 3
- 308 Personal Finance ......... 3
- 351 Introduction to Risk and Insurance .... 3
- 382 Introduction to Management ......... 3
- Electives in Business ......... 2

**Office Administration**
- 215 Computers in Business ......... 3
- 222 Office Simulation ......... 4
- 240 Principles of Accounting ......... 3
- 316 COBOL Programming ......... 3
- 395 Office Administration ......... 3
- 415 Records Administration ......... 2

**Secretarial**
- 224 Calculator Applications: Business and Personal ......... 3
- 240 Principles of Accounting ......... 3
- 227 Shorthand Speedbuilding ......... 3
- 325 Shorthand Transcription ......... 3
- 326 Secretarial Procedures ......... 3

**Semester Hours**
- 20

*Students having deficiencies in elementary typewriting may enroll in BED 120. Students having deficiencies in elementary shorthand may enroll in one of the beginning shorthand courses (BED 225 or BED 223). Students with proficiency equivalent to course requirements in BED 301, Typewriting Applications, or in one of the shorthand courses, may test out of those courses or have the course waived and a substitute course approved for their programs.

**FLEXIBLE PROGRAM IN BUSINESS**

Adviser Chairman, Robert A. Ristau
Administrative Services and Business Education

This is a special program designed for students who have an established career goal that can be achieved with less than a baccalaureate degree. A short-range goal is the primary focus of this plan, but the achievement of a baccalaureate degree through further study is included as a long-range goal.

Each student's program is individually arranged; therefore, there can be no listing here of "required" courses. However, as some general requirements which guide the design of a student's Flexible Program Plan, each plan must include:

1. Some courses in the basic studies area.
2. One or more physical education activity courses.
3. At least 40 credit hours of course work at EMU (normally, 62 to 75 hours of course work are necessary to achieve competencies desired in these plans).
4. At least 16 credit hours in courses directly related to the stated career goal.

Examples of career goals for which Flexible Program Plans can be arranged include, but are not limited to, secretary (legal, medical, etc.), retail supervisor, junior accountant, office administrator trainee, sales representative.

After an adviser has discussed the student's career goal and a program of studies based on individual needs has been agreed upon, a Flexible Program Plan will be filled out showing what specific courses must be completed. This Program Plan will be the basis for check-out upon completion of the plan. A Certificate of Goal Attainment will be issued to students who complete Program Plans with an overall grade average of "C" or better.

Since many students eventually will want to earn a baccalaureate degree, a list of courses which must be completed to attain a BBA or BBE degree will be prepared by the student's adviser upon completion of the Program Plan.

**CHEMISTRY**

Chemistry Major (30 semester hours)

This major is provided for students who do not intend to become professional chemists. It is designed for students who plan to teach chemistry in a secondary school, who desire a general cultural education with an emphasis on chemistry, who are preparing for work in another field such as pre-medicine, pre-dentistry or pre-law or who are interested in combining chemistry with an allied field.

**Semester Hours**

**Required courses:**
- 131 General Chemistry I ......... 5
- 132 General Chemistry II ......... 4
- 281 Quantitative Analysis ......... 4
- 371-372-373 Organic Chemistry ......... 8
- 361 Fundamentals of Physical Chemistry ......... 3
- 362 Physicochemical Measurements ......... 1
- Electives in chemistry from courses above 200 ......... 5

Note: Prerequisites for the above courses include 120 Calculus I, and two semesters of college Physics, a total of 12-14 semester hours.

(Transfer students must elect at least three semester hours in this department for a major.)

The methods class for those students who plan to teach
chemistry at the junior-senior high level is Physics 325, Methods in Science Teaching, usually offered only in the fall semester.

**Chemistry Minor (20–24 Hours)**

Required courses:
- 131 General Chemistry I .................................. 5
- 132 General Chemistry II .................................. 4
- 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. (Transfer students must elect at least three semester hours in this department for minor.)

**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 26 semester hours in mathematics and physics, required by the curriculum as prerequisites for advanced chemistry courses, fulfills the required minor. No additional minor is required.

Students on this program select either a Bachelor of Science or Bachelor of Arts degree, and must follow the curriculum requirements listed on pages 34–35. 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 35. 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.

Courses in computer programming are highly recommended for all professional chemistry majors.

Ten semester hours, or an equivalent reading knowledge, of a foreign language, preferably German, are recommended for A.C.S. certification.*

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*NOTE: During the semester prior to graduation, students wishing A.C.S. certification of their degree must make formal application to the department head. If the student does not desire an A.C.S. certified degree in chemistry, a 40 semester hour chemistry major can be obtained by completing all of the above listed courses except the foreign language and one of the advanced electives.
Mathematics:
237 Computer Programming and Numeric Methods
337 Programming Languages
425 Mathematics for the Scientist
Other 400 level courses with department approval

Physics:
430 Intermediate Mechanics I
440 Optics
450 Electricity and Magnetism
452 Electrical Measurements
456 Electronics for Scientists
460 Heat and Thermodynamics
470 Atomic Physics
471 Nuclear Physics
475 Introduction to Quantum Mechanics
476 Solid State Physics

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.

Metallurgical Chemistry Curriculum

This curriculum provides the necessary background for industrial research and development in chemical metallurgy or other areas of chemistry involving a minimum of organic chemistry. Graduate study in chemistry or metallurgy would probably require additional course work in organic chemistry or metallurgy respectively. Below is a list of the required science and mathematics courses in a recommended sequence. All comments under “Professional Chemistry Curriculum” apply except those concerning A.C.S. certification.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td>131 General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>120 Calculus I</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>123 Metal Processes</td>
<td>3</td>
</tr>
<tr>
<td>Second Semester</td>
<td>132 General Chemistry</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>121 Calculus II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>122 Elementary Linear Algebra</td>
<td>2</td>
</tr>
<tr>
<td>First Semester</td>
<td>281 Quantitative Analysis</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>223 Mechanics, Sound, and Heat</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>223 Multivariable Calculus</td>
<td>4</td>
</tr>
<tr>
<td>Second Semester</td>
<td>270 Organic Chemistry</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>271 Organic Chemistry Laboratory</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>325 Differential Equations and Vector Analysis</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>224 Electricity and Light</td>
<td>5</td>
</tr>
<tr>
<td>First Semester</td>
<td>461 Physical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>237 Computer Programming and Numeric Methods</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>241 Materials Science</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>242 Materials Science Laboratory</td>
<td>1</td>
</tr>
</tbody>
</table>

Second Semester
463 Physical Chemistry .................. 3
462 Physical Chemistry Laboratory ...... 2
341 Principles of Metallurgy .......... 3
342 Experimental Metallurgy ............ 1

Fourth Year

First Semester
432 Advanced Inorganic Chemistry ........ 3
The following electives are recommended when the student's time and interest permits:
476 Solid State Physics .................... 3
481 Instrumental Analysis .................. 4
498 Special Problems in Chemistry ....... 2
530 X-Ray Crystallography ............... 3
561 Advanced Physical Chemistry .......... 3

CHILD CARE GUIDANCE SERVICES MINOR

Administered by the Home Economics Department

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>Required Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>1 One (1) course in Family Life (209 or others)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>201 Nutrition for the Family</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>207 Living with Young Children</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>208 SGN 251 Education of Exceptional Children</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>308 Infant Care and Guidance</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>372 Methods and Resources in Child Care</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>413 Experiences with Children</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>422 Seminar in Child Development</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Elective</td>
<td>2</td>
</tr>
</tbody>
</table>

- COASTAL ENVIRONMENTS MINOR

(Non-Teaching)

Administered by the 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.

Program Core Courses (15 hours)
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 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 listing is not intended to be restrictive, and the individual student, in conjunction with the program adviser, may select some elective courses which are not listed.

*This minor qualifies the prospective holder of the secondary provisional teaching certificate to earn the endorsement in Occupational Child Care Services. An additional recent, relevant supervised work experience is required for students earning the occupational endorsement. This is not a coded teaching minor at the elementary level.
COMPUTER SCIENCE
Administered by the Department of Mathematics

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)

Semester Hours

Required Courses ........................................... 21
137 or 237, 138, 239, 330, 334, 337, 338
Any two from 430, 431, 432, 436, 438,
plus one course chosen from the mathematics electives list given below.

Note: If 137 is taken, then 436 must be included as one of the above electives.

Additional requirements ................................ 17
MTH 120, 121, 122, 223
Mathematics electives: 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.

Semester Hours

Required Courses ........................................... 12
137 or 237, 138, 239, 330
Electives ....................................................... 9
Any three of the following with at least one 400-
level course: 136, 334, 337, 338, 430, 431,
432, 436, 438.

Note: 136 may be counted only if taken prior to or concurrently with 137 or 237.

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 Mathematics Department course offerings.

Students seeking further information about this major or minor should consult with Pedro P. Sanchez of the Department of Mathematics.

Please note the General Requirements of the Mathematics Department listed on page 176.

CONSERVATION RESOURCE USE

Minor in Conservation Resource Use (24 semester hours)

Adviser: Robert O. Belcher
Biology Department

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

Required Courses: ............................................. 13
*GEO 108 Earth Science ................................. 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 approved 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 .......... 4
GEO 208 Natural Environmental Hazards .......... 3
GEO 211 Geography of U.S. and Canada ............ 3
GEO 223 Weather and Climate ......................... 3
GEO 226 Oceans .............................................. 2
GEO 229 Rocks of Michigan ............................ 2
GEO 235 Economic Geography ....................... 3
GEO 305 Aerial Photo Interpretation ............... 3
GEO 310 Geography of Energy ......................... 3
GEO 315 Land Use Planning ............................. 3
GEO 327 Soils Science .................................... 2
GEO 332 Urban Geography ............................. 3
GEO 361 Geography of Population ................... 3
GEO 424 Climatology .................................... 2
GEO 448 Ground Water .................................. 3
GEO 495 Environmental Impact Assessment ........ 3
SOC 306 Urban Community ............................ 3
SOC 334 Population ...................................... 3

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 202 State and Local Government.

*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 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 410 Limnology or BIO 420 Ecology on the major and substitute an additional approved elective on the minor.

***Students who prefer to elect ECO 201-202 Principles of Economics may substitute 201 for 200 The American Economy and count 202 as an elective on the minor. Students who are required to take 201-202 Principles of Economics for other purposes on their curricula, as in business administration, may not count it on this minor and must substitute an additional elective for 200 The American Economy.
CONSUMER AND HOME ECONOMICS EDUCATION

Curriculum for Teachers of Consumer and Home Economics Education

Bachelor of Science Degree

Secondary Provisional Certificate Vocational Consumer and Home Economics Endorsement

Adviser Chairperson, Betty Barber

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 35. 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 program 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
105 Survey of Chemistry .................................. 5
115 Physics in the Modern Home ...................... 4
101 General Psychology ................................. 3

Group III Social Sciences ............................... 9–12
One course in American government selected from:
112 American Government or 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.
105 Integrated Arts ..................................... 3

Group IV Education .................................... 24
320 Human Growth and Development ................. 4
326 School and Society .................................. 6
370 Methods and Materials in Teaching Consumer and Home Economics Education .... 2
371 Resources in Teaching Consumer and Home Economics Education .... 2
418 Seminar in Education ............................... 2
492 Student Teaching .................................. 8

Group VI Practical Arts (Home Economics Major) .......... 36
Foundation Courses ..................................... 4
200 The Family as Environment ........................ 2
400 The Family in Environment ........................ 2
Application Courses (Consumer and Home Economics Education) .......... 32
Select at least two courses from each area.

Clothing and Textiles
114 Clothing for Consumers ............................ 3
118 Clothing Principles .................................. 2
*235 Textiles for Consumers ............................ 3
*302 Experimental Clothing ............................ 3
303 Interdisciplinary Study of Clothing .............. 3
392 Pattern Design ...................................... 3

Consumer Affairs and Education
112 Family Resources ..................................... 2
*271 Household Equipment .............................. 3
*285 Home Management ................................ 3
322 Family Financial Management .................... 3
399 The Consumer in the Ecology .................... 3

Family Life and Child Development
109 Interpersonal Relations in the Family ............ 2
*207 Living with Young Children ..................... 3
*209 Marriage and Interpersonal Competence ........ 3
308 Infant Care and Guidance .......................... 3
361 Issues in Family Life ............................... 3

Foods and Nutrition
102 Family Food Management .......................... 2
*118 Foods for Consumers ............................... 3
*201 Nutrition for the Family .......................... 3
*213 Family Health Care ............................... 3
251 Meal Management ................................. 2
412 Nutrition of the Life Cycle ....................... 3

Interior Design and Housing
*208 Basic Interior Design .............................. 3
*269 Ecological View of Housing ..................... 3
350 Historic Near Environment ...................... 2
352 Contemporary Near Environment ............... 2

Group VII Physical Education and Health ............ 4
Physical education activity courses .................. 4
Note: Two semester hours of military science may be applied toward this requirement.

Electives .................................................... 19–15

Total .......................................................... 124

Students on this program should select a minor of 20–24 hours from Child Care Guidance Services, Family Life, or Nutrition.

*Indicates courses which will meet minimum requirements for Vocational Secondary Endorsement in Consumer and Home Economics Education.
CURRICULUM FOR CONSUMER SERVICES

Bachelor of Science Degree
Adviser Chairperson, Betty Lou Barber
Home Economics Department

The consumer services curriculum provides an interdisciplinary academic program supported by a home economics base which emphasizes the basic decision-making unit in society: the family. By drawing upon course offerings of various departments within the University, it 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 35. 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**

<table>
<thead>
<tr>
<th>Group I Language</th>
<th>8-9</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course in English Composition or, if eligible, a foreign language course.</td>
<td></td>
</tr>
<tr>
<td>One course in fundamentals of speech.</td>
<td></td>
</tr>
<tr>
<td>215 Journalism or 325 Expository Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group II Science and Mathematics</th>
<th>10-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>One laboratory science course.</td>
<td></td>
</tr>
<tr>
<td>A second laboratory science course or a course in mathematics.</td>
<td></td>
</tr>
<tr>
<td>An elective course in Group II.</td>
<td></td>
</tr>
</tbody>
</table>

Note: Foods in Business requires 119 Fundamentals of Chemistry and 120 Fundamentals of Chemistry or 131 General Chemistry I, 270 Organic Chemistry, 271 Organic Chemistry, Laboratory, and 105 Biology and the Human Species

<table>
<thead>
<tr>
<th>Group III Social Sciences</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course in history</td>
<td>3</td>
</tr>
<tr>
<td>112 American Government or 202 State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td>201, 202 Principles of Economics</td>
<td>6</td>
</tr>
</tbody>
</table>

| 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. |
| 105 Integrated Arts | 3 |

<table>
<thead>
<tr>
<th>Group VI Practical Arts</th>
<th>50</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Consumers Services Major)</td>
<td></td>
</tr>
<tr>
<td>Foundation Courses</td>
<td>4</td>
</tr>
<tr>
<td>200 The Family as Environment</td>
<td>2</td>
</tr>
<tr>
<td>400 The Family in Environment</td>
<td>2</td>
</tr>
<tr>
<td>Application Courses</td>
<td>8-12</td>
</tr>
<tr>
<td>Select at least one (1) course from each area outside the area of specialization</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Clothing and Textiles</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>114 Clothing for Consumers</td>
<td>3</td>
</tr>
<tr>
<td>116 Clothing Principles</td>
<td>2</td>
</tr>
<tr>
<td>235 Textiles for Consumers</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Consumer Affairs and Education</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>112 Family Resources</td>
<td>2</td>
</tr>
<tr>
<td>271 Household Equipment</td>
<td>3</td>
</tr>
<tr>
<td>285 Home Management</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Family Life and Child Development</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>109 Interpersonal Relations in the Family</td>
<td>2</td>
</tr>
<tr>
<td>207 Living with Young Children</td>
<td>3</td>
</tr>
<tr>
<td>209 Marriage and Interpersonal Competence</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Foods and Nutrition</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>102 Family Food Management</td>
<td>2</td>
</tr>
<tr>
<td>107 Food for Man</td>
<td>2</td>
</tr>
<tr>
<td>116 Foods for Consumers</td>
<td>3</td>
</tr>
<tr>
<td>201 Nutrition for the Family</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interior Design and Housing</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>208 Basic Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>269 Ecological View of Housing</td>
<td>3</td>
</tr>
<tr>
<td>350 Historic Near Environment</td>
<td>2</td>
</tr>
<tr>
<td>352 Contemporary Near Environment</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Professional Sequence</th>
<th>9-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>360 Principles of Marketing or 382 Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>210 Display Techniques or 390 Demonstration Methods</td>
<td>2-3</td>
</tr>
<tr>
<td>497, 498, or 499 Directed Study</td>
<td>1-3</td>
</tr>
<tr>
<td>105 Introductory Sociology</td>
<td>3</td>
</tr>
<tr>
<td>101 General Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Specialization Areas:** Minimum hours required. Select one of the two specialization groups. Include the starred courses in the total hours required for the specialization.

<table>
<thead>
<tr>
<th>Consumer Affairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>*112 Family Resources</td>
</tr>
<tr>
<td>*285 Home Management</td>
</tr>
<tr>
<td>*322 Family Financial Management</td>
</tr>
<tr>
<td>*399 The Consumer in the Ecology</td>
</tr>
<tr>
<td>*409 Consumer Problems in the Family</td>
</tr>
<tr>
<td>*420 Seminar in Consumer Issues</td>
</tr>
<tr>
<td>114 Clothing for Consumers</td>
</tr>
<tr>
<td>116 Foods for Consumers</td>
</tr>
<tr>
<td>201 Nutrition for the Family</td>
</tr>
<tr>
<td>235 Textiles for Consumers</td>
</tr>
<tr>
<td>269 Ecological View of Housing</td>
</tr>
<tr>
<td>271 Household Equipment</td>
</tr>
<tr>
<td>414 Field Experience in Home Economics</td>
</tr>
<tr>
<td>MKT 360 Principles of Marketing</td>
</tr>
<tr>
<td>MKT 363 Retailing</td>
</tr>
</tbody>
</table>
MKT 365 Buyer Behavior .......................... 3
ACC 240 Principles of Accounting ............. 3
ACC 244 Personal Tax Accounting .............. 2
INS 351 Introduction to Risk and Insurance ... 3
ADS 306 Personal Finance ........................ 3
ADS 303 Legal Environment of Business ....... 3
SOC 214 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 350 Persuasion ................................ 3
SPH 140 Introduction to Broadcasting and Film 3

Foods in Business
*116 Foods for Consumers ....................... 3
*201 Nutrition for the Family .................. 3
*211 Food Science ................................ 3
*251 Meal Management ......................... 3
*411 Food Investigation ......................... 3
*435 Foods and Nutrition Seminar ............ 2
*326 Introductory Microbiology ................. 3
*330 General Microbiology Laboratory ...... 2
213 Family Health Care ........................ 2
271 Household Equipment ....................... 3
412 Nutrition of the Life Cycle ................. 3
414 Field Experience in Home Economics .... 3
416 Contemporary Issues in Nutrition ......... 3
210 Display Techniques .......................... 2
390 Demonstration Methods ..................... 3
MKT 360 Principles of Marketing ............... 3
MGT 382 Introduction to Management .......... 3
ENG 215 Journalism ................................ 3
ENG 325 Expository Writing ..................... 2
SPH 350 Persuasion ................................ 3
SPH 140 Introduction to Broadcasting and Film 3

Group VII Physical Education and Health ...... 4
Physical education activity courses .......... 4
Note: Two semester hours of military science may be applied toward this requirement.
Free electives .................................. 4
Total .......................................... 25–28

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.)

COOPERATIVE EDUCATION

Cooperative education is not a major or minor. It is two carefully designed educational work experiences, each a semester long, usually planned to occur in the student's junior and senior years. For students who qualify, the director of cooperative education attempts to place them in an appropriate business, industry, or agency which will give them experience in their own career field.

The student is paid for the "Co-op" experience and, by enrolling in and completing the requirements of an appropriate cooperative education course, receives three credits for each semester. The departments must approve both the student and the placement. At present the following departments participate in the program: Chemistry, Mathematics (in both mathematics and computer science), Physics, and Industrial Technology and Industrial Education.

Students interested in the program should contact Jane Moehle, director of cooperative education, Office of Continuing Education, 322 Goodison (487-0407), preferably during the freshman or sophomore year.

CRIMINAL JUSTICE AND CRIMINOLOGY CURRICULUM

Bachelor of Arts or Bachelor of Science Degree

Adviser Chairman, Edward Green
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 9–10 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 35. 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.

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 ........ 16–17
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.
Additional Electives

The following courses are pertinent to various fields of criminal justice.

Criminology and Criminal Justice

SOC 461 Current Issues in Sociology of Crime, Law and 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

Note: Students completing the above major will have satisfied all major and minor requirements for graduation, and no additional minor is needed.

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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

Note: Students completing the above major will have satisfied all major and minor requirements for graduation, and no additional minor is needed.

Additional Electives

The following courses are pertinent to various fields of criminal justice.

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PLS 270 Public Administration
PLS 381 Public Policy Analysis
MGT 386 Organization Theory and Development

Note: Students completing the above major will have satisfied all major and minor requirements for graduation, and no additional minor is needed.
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 dance, 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:


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 35. This same procedure 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 120 hours required for graduation, exclusive of any credits in physical education activity courses.

### Semester Hours

<table>
<thead>
<tr>
<th>Group I Language</th>
<th>8-9</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course in English composition or, if eligible, a foreign language course.</td>
<td></td>
</tr>
<tr>
<td>One course in fundamentals of speech.</td>
<td></td>
</tr>
<tr>
<td>One elective course in English language, in a foreign language, in speech, or in library science (Group I).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group II Science and Mathematics</th>
<th>10-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>101 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>105 Biology and the Human Species</td>
<td>4</td>
</tr>
<tr>
<td>A second laboratory science course or a course in mathematics.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group III Social Sciences</th>
<th>9-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course in American government selected from:</td>
<td></td>
</tr>
<tr>
<td>112 American Government or 202 State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td>One course in history.</td>
<td></td>
</tr>
<tr>
<td>A second course in history or a two-semester sequence in sociology-cultural anthropology or economics or geography (Group III).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Humanities</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.</td>
<td></td>
</tr>
<tr>
<td>One course in philosophy or religion.</td>
<td></td>
</tr>
</tbody>
</table>

### Group IV Education

<table>
<thead>
<tr>
<th>302 Educational Psychology</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>303 Principles of Teaching</td>
<td></td>
</tr>
<tr>
<td>354 Methods and Materials in the Teaching of Dance</td>
<td></td>
</tr>
<tr>
<td>418 Seminar in Education</td>
<td></td>
</tr>
<tr>
<td>440 Tests and Measurements in Physical Education</td>
<td></td>
</tr>
<tr>
<td>492 Student Teaching</td>
<td></td>
</tr>
</tbody>
</table>

### Group VII Physical Education and Health

<table>
<thead>
<tr>
<th>107 Rhythmic Analysis and Dance Accompaniment</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 Anatomy and Physiology</td>
<td></td>
</tr>
<tr>
<td>245 Elements of Dance Composition</td>
<td></td>
</tr>
<tr>
<td>255 Dance Production</td>
<td></td>
</tr>
<tr>
<td>350 Dance History</td>
<td></td>
</tr>
<tr>
<td>355 Labanotation</td>
<td></td>
</tr>
<tr>
<td>450 Advanced Dance Composition</td>
<td></td>
</tr>
<tr>
<td>455 Seminar in Dance</td>
<td></td>
</tr>
<tr>
<td>Electives: to be chosen from related areas with dance division chairperson's approval</td>
<td>4</td>
</tr>
<tr>
<td>Dance major studio activity courses</td>
<td>15</td>
</tr>
<tr>
<td>C103 Couple, Square, Ballroom Dance</td>
<td>1</td>
</tr>
<tr>
<td>P116 Modern Dance I</td>
<td></td>
</tr>
<tr>
<td>P120 Modern Dance II</td>
<td></td>
</tr>
<tr>
<td>P124 Folk Dance</td>
<td></td>
</tr>
<tr>
<td>P132 Modern Dance III</td>
<td></td>
</tr>
<tr>
<td>P134 Service Teaching</td>
<td></td>
</tr>
<tr>
<td>P136 Service Teaching</td>
<td></td>
</tr>
<tr>
<td>P150 Modern Dance IV</td>
<td></td>
</tr>
<tr>
<td>C160 Ballet</td>
<td></td>
</tr>
<tr>
<td>C260 Intermediate Ballet</td>
<td></td>
</tr>
<tr>
<td>320 or 322 Dance Workshop</td>
<td></td>
</tr>
<tr>
<td>422 or 423 Dance Workshop</td>
<td></td>
</tr>
<tr>
<td>Approved electives in activity courses</td>
<td>3</td>
</tr>
</tbody>
</table>

Free electives: 30-24

Total: 135

### 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

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>106 Introduction to the Performing Arts</td>
</tr>
<tr>
<td>107 Rhythmic Analysis and Dance Accompaniment</td>
</tr>
<tr>
<td>245 Elements of Dance Composition</td>
</tr>
</tbody>
</table>

*These courses are optional: required only if desiring a teaching certificate.*
PRE-DENTISTRY CURRICULUM

Adviser Chairman, John M. Sullivan
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, Admissions 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. Brochures describing application procedures are available from advisers.

Following is a typical program designed to complete dental school requirements in four 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**

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>121 English Composition</td>
<td>3</td>
</tr>
<tr>
<td>131 General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>106 Orientation to Biology</td>
<td>2</td>
</tr>
<tr>
<td>105 College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>2</td>
</tr>
<tr>
<td>Physical education activity or military science</td>
<td>1</td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>121 Fundamentals of Speech</td>
<td>2</td>
</tr>
<tr>
<td>132 General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>107 Trigonometry (if not taken in high school)</td>
<td>2</td>
</tr>
<tr>
<td>Physical education activity or military science</td>
<td>1</td>
</tr>
<tr>
<td>Electives</td>
<td>5-6</td>
</tr>
</tbody>
</table>

**Third Year**

<table>
<thead>
<tr>
<th>Third Year</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>324 Comparative Anatomy of Vertebrates</td>
<td>4</td>
</tr>
<tr>
<td>221 Mechanics, Sound and Heat</td>
<td>4</td>
</tr>
<tr>
<td>Electives</td>
<td>7-8</td>
</tr>
</tbody>
</table>

**Second Semester**

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>222 Electricity and Light</td>
<td>4</td>
</tr>
<tr>
<td>Electives</td>
<td>11-12</td>
</tr>
</tbody>
</table>

**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:
- English 121
- Speech 121
- Chemistry 119
- Psychology 101 or 102
- Sociology 105
- Political Science 112

Electives:
- Social Science and Humanities
- History, Sociology, Anthropology
- Literature
- Philosophy, Religion
- Art, Music, Dramatic Arts

CURRICULUM FOR DIETETICS

Bachelor of Science Degree
Adviser Chairperson, Betty Lou Barber
Home Economics Department

This curriculum is a coordinated undergraduate program in 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 [116 Foods for Consumers; 211 Food Science; 105 Biology and the Human Species; 131 General Chemistry I; and 201 Principles of Economics] and by time of entrance into program [202 Human Nutrition; 270 Organic Chemistry; and 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 35. 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
- 101 General Psychology ...................... 3
- 105 Biology and the Human Species ...... 4
- 131 General Chemistry I ................. 5
- 270 Human Physiology .................... 3
- 270 Organic Chemistry ................... 4
- 271 Organic Chemistry Laboratory ... 1
- 328 Introductory Microbiology .......... 3
- 351 Introductory Biochemistry .......... 3
- 352 Basic Biochemical Analysis ......... 1

Group III Social Sciences ......................... 15
One course in American government selected from:
- 112 American Government or
- 202 State and Local Government ....... 3
One course in history.
Two semester sequence in sociology.
- 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

105 Integrated Arts ................................. 2–3

Group VI Practical Arts (Dietetics Major) ........ 52

Foundation Courses .................. 4

200 The Family as Environment ........... 2

400 The Family in Environment ........... 2

Application Courses .............. 48

116 Foods for Consumers ............ 3

202 Human Nutrition .................. 3

211 Food Science ....................... 3

301 Orientation to Dietetics ........... 2

312 Community Nutrition ............. 3

384 Clinical Dietetics I ............... 3

394 Food Systems Management I .... 3

402 Nutrient Metabolism ............. 3

435 Foods and Nutrition Seminar .... 2

484 Clinical Dietetics II ............... 4

485 Clinical Dietetics III ............... 5

494 Food Systems Management II .... 3

495 Food Systems Management III ... 5

MGT 382 Introduction to Management 3

MGT 384 Personnel Administration ... 3

Group VII Physical Education and Health ... 4

Physical education activity courses ........ 4

Note: Two semester hours of military science may apply toward this requirement.

Free electives .................. 7–5

Total ............................................. 124

Students completing the above curriculum have met the major and minor requirements for graduation. No outside minor is needed.

**DRAMATIC ARTS**

Administered by the Speech and Dramatic Arts Department

**Dramatic Arts Major (30 semester hours)**

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses:</td>
</tr>
<tr>
<td>100 Introduction to Theatre .................. 3</td>
</tr>
<tr>
<td>135 Play Production ........................... 3</td>
</tr>
<tr>
<td>234 Stagecraft ................................ 3</td>
</tr>
<tr>
<td>One of the following: ........................ 3</td>
</tr>
<tr>
<td>242 Fundamentals of Acting</td>
</tr>
<tr>
<td>370 Scene Design</td>
</tr>
<tr>
<td>335 Play Direction ........................... 3</td>
</tr>
<tr>
<td>406 History of the Theatre .................. 3</td>
</tr>
<tr>
<td>499 Seminar in Theatre ....................... 2</td>
</tr>
<tr>
<td>167, 267 Theatre Practice .................... 2</td>
</tr>
<tr>
<td>Electives ...................................... 8</td>
</tr>
</tbody>
</table>

Electives may be chosen from courses in dramatic arts (excepting 133, 501, 502 and 503) and the following: LITERATURE 103 The Reading of Literature: Drama, 210 Introduction to Shakespeare, 305 Shakespeare: The Major Comedies and Histories, 340 English Drama 1558–1642, 341 English Drama 1660–1779, 403 Modern Drama; SPEECH 314 Interpretation of Drama.
Dramatic Arts Minor (20 semester hours)

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 Introduction to Theatre</td>
<td>3</td>
</tr>
<tr>
<td>135 Play Production</td>
<td>3</td>
</tr>
<tr>
<td>234 Stagecraft</td>
<td>3</td>
</tr>
<tr>
<td>335 Play Direction</td>
<td>3</td>
</tr>
<tr>
<td>406 History of the Theatre</td>
<td>3</td>
</tr>
<tr>
<td>167 Theatre Practice</td>
<td>1</td>
</tr>
<tr>
<td>Electives</td>
<td>4</td>
</tr>
</tbody>
</table>

Drama for the Young Minor (20 semester hours)

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>121 Fundamentals of Speech</td>
<td>2-3</td>
</tr>
<tr>
<td>124 Fundamentals of Speech</td>
<td></td>
</tr>
<tr>
<td>222 Drama and Play in Human Experience</td>
<td>3</td>
</tr>
<tr>
<td>322 Theatre for Children</td>
<td>3</td>
</tr>
<tr>
<td>323 Improvisation</td>
<td>3</td>
</tr>
<tr>
<td>324 Oral Interpretation of Children's Literature</td>
<td>3</td>
</tr>
<tr>
<td>Electives from the following</td>
<td>6-5</td>
</tr>
<tr>
<td>100 Introduction to Theatre</td>
<td>3</td>
</tr>
<tr>
<td>132 Interpretative Reading</td>
<td>3</td>
</tr>
<tr>
<td>168, 268, 368, 468 Interpretation</td>
<td>1</td>
</tr>
<tr>
<td>422, 423, 424 Independent Study in Drama for the Young</td>
<td>1, 2, 3</td>
</tr>
<tr>
<td>207 Introduction to Children's Literature</td>
<td>3</td>
</tr>
</tbody>
</table>

PILOT UNDERGRADUATE PROGRAM IN EARLY CHILDHOOD EDUCATION

Administered by the Curriculum and Instruction Department

Eastern Michigan University initiated a pilot program in Early Childhood Education during the fall semester, 1973. The program, an alternative to the present 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 in public schools. Students join the program their sophomore year by enrolling in Education 101 Introduction to Early Childhood Education for two hours credit.

Unique features of the pilot 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 Professional Block III which is taken the second semester of the junior year.

Each of the education courses includes field experiences with young children. These experiences replace the required pre-student teaching experiences in the regular early elementary education curriculum at EMU. Students in the pilot program have student teaching experiences at both the preschool 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 35. 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.

Present plans for the pilot program call for the required courses to be offered during the regular fall and winter semesters. 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 Curriculum and Instruction Department, 325 Pierce Hall (487-3260).

Early Childhood Education

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group I Language</td>
<td>14-15</td>
</tr>
<tr>
<td>One course in English composition or, if eligible, a foreign language course.</td>
<td></td>
</tr>
<tr>
<td>One course in fundamentals of speech.</td>
<td></td>
</tr>
<tr>
<td>One elective course in English language, in a foreign language, in speech, or in library science (Group I).</td>
<td></td>
</tr>
<tr>
<td>207 Introduction to Children's Literature</td>
<td>3</td>
</tr>
<tr>
<td>222 Drama and Play in Human Experience</td>
<td>3</td>
</tr>
<tr>
<td>Group II Science and Mathematics</td>
<td>10-11</td>
</tr>
<tr>
<td>101 Functional Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>101 or 102 General Psychology</td>
<td>3-4</td>
</tr>
<tr>
<td>One laboratory science course</td>
<td>4</td>
</tr>
<tr>
<td>Group III Social Sciences</td>
<td>12</td>
</tr>
<tr>
<td>One history course</td>
<td>3</td>
</tr>
<tr>
<td>Two courses in sociology</td>
<td>6</td>
</tr>
<tr>
<td>105 Introductory Sociology</td>
<td>3</td>
</tr>
<tr>
<td>One of the following:</td>
<td></td>
</tr>
<tr>
<td>204 Marriage and Family</td>
<td>3</td>
</tr>
<tr>
<td>214 Racial and Cultural Minorities</td>
<td>3</td>
</tr>
<tr>
<td>306 The Urban Community</td>
<td>3</td>
</tr>
<tr>
<td>308 Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Either of the following:</td>
<td>3</td>
</tr>
<tr>
<td>112 American Government or 202 State and Local Government</td>
<td></td>
</tr>
</tbody>
</table>

Humanities

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.</td>
<td></td>
</tr>
<tr>
<td>One course in philosophy or religion (Arts course requirements automatically met in Group V below.)</td>
<td></td>
</tr>
<tr>
<td>Group IV Education</td>
<td>33</td>
</tr>
<tr>
<td>ECE 100 Introduction to Early Childhood Education</td>
<td>2</td>
</tr>
<tr>
<td>EDP 200 Early Childhood/Human Growth and Development</td>
<td>5</td>
</tr>
<tr>
<td>ECE 300 The Young Child in School and Society</td>
<td>8</td>
</tr>
<tr>
<td>ECE 301 Methods: Reading—Math—Science—Arts for Early Childhood</td>
<td>10</td>
</tr>
<tr>
<td>Student Teaching Early Childhood Education</td>
<td>8</td>
</tr>
</tbody>
</table>
Group V Fine Arts ........................ 2–3
Any one of the following:
101 Introduction to Art .......................... 3
300 Creative Arts ................................... 3
104 Elements of Music ............................. 2
322 Music Literature for Children ............. 2

Group VII Physical Education and Health .... 4
Physical education activity courses .......... 4
Must include:
PEC 157 Physical Education for the
Classroom Teacher
One dance course
Note: Two semester hours of military science
may be applied toward this requirement.

Sequence for Group IV Equivalents

Freshman Year

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.

Sophomore Year

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: 101 or 102 General Psychology and 101 Introduction to Early Childhood Education.

Junior Year

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 city programs and public and private school facilities will be required.
Prereq: 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: 300 The Young Child in School and Society.

Senior Year

Student Teaching Early Childhood Education.
Eight sem hours
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. The following options are suggested.

<table>
<thead>
<tr>
<th>Option A</th>
<th>Hours from Above</th>
<th>Additional Hours</th>
<th>Total Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Science Group Major</td>
<td>12</td>
<td>24</td>
<td>36</td>
</tr>
<tr>
<td>Substantive Field Planned Program selected from Group I courses</td>
<td>17–18</td>
<td>2–3</td>
<td>20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Option B</th>
<th>Hours from Above</th>
<th>Additional Hours</th>
<th>Total Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English, Speech and Dramatic Arts Major</td>
<td>20</td>
<td>16</td>
<td>36</td>
</tr>
<tr>
<td>Substantive Field Planned Program selected from Group III courses</td>
<td>12</td>
<td>8</td>
<td>20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Option C</th>
<th>Hours from Above</th>
<th>Additional Hours</th>
<th>Total Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drama for the Young</td>
<td>8</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>Social Science Group Minor</td>
<td>12</td>
<td>12</td>
<td>24</td>
</tr>
<tr>
<td>Content and Methods Planned Program</td>
<td>17–18</td>
<td>2–3</td>
<td>20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Option D</th>
<th>Hours from Above</th>
<th>Additional Hours</th>
<th>Total Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English, Language and Literature Minor</td>
<td>15</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Social Science Group Minor</td>
<td>12</td>
<td>12</td>
<td>24</td>
</tr>
<tr>
<td>Content and Methods Planned Program</td>
<td>17–18</td>
<td>2–3</td>
<td>20</td>
</tr>
</tbody>
</table>

Academic hours, meeting all requirements, must total at least 120, exclusive of any hours used to meet physical education activity course requirements.

With above options, required elective hours to complete 120 academic hours are:

<table>
<thead>
<tr>
<th>Option A</th>
<th>Hours from Above</th>
<th>Additional Hours</th>
<th>Total Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>15–16 elective hours</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option B</td>
<td>15 Elective hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option C</td>
<td>15–16 elective hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option D</td>
<td>18–20 elective hours</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
EARTH SCIENCE

Administered by the Geography and Geology Department

Earth Science Major (30 semester hours)

Semester Hours

Required courses for a major in earth science:
108 Earth Science ........................................ 4
223 Weather and Climate ................................. 3
226 The Oceans ............................................. 2
228 Mineralogy or
229 Rocks of Michigan .................................... 3-2
230 Historical Geology .................................... 3
AST 103 Exploration of the Universe ................ 3
331 Paleontology or
325 Geomorphology ..................................... 3
*Electives .................................................. 9-10

Earth science majors who are candidates for teacher certification will take, in addition, 347 Teaching Earth Science, three semester hours in Group IV.

Earth Science Minor (20 semester hours)

Semester Hours

Required courses for a minor in earth science:
108 Earth Science ........................................ 4
223 Weather and Climate ................................. 3
226 The Oceans ............................................. 2
229 Rocks of Michigan .................................... 2
AST 103 Exploration of the Universe ................ 3
Two of the following courses ........................... 6
228 Mineralogy
230 Historical Geology
325 Geomorphology
331 Paleontology
370 Glacial Geology

It is highly recommended that earth science minors who are candidates for secondary teacher certification take, in addition, 347 Teaching Earth Science and Physical Geography, three semester hours in Group IV.

ECONOMICS

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.

*Students on the later elementary curriculum or secondary curriculum should choose at least nine semester hours from the following list: 114, 227, 228, 229, 325, 326, 327, 331, 370, 424, 462, 480; Biology 105, 224. Additional electives recommended for those planning graduate work in an earth science field should include: 301, 303, 330; Mathematics 107; Physics 221; Chemistry 119; Industrial Education 206.
Governmental Economics

Planned for students who desire to learn about the economic aspects of all levels of governments 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.

Recommended electives:
- 323 Labor and Government .................................. 3
- 332 Urban Economics ........................................ 3
- 336 Economics of Environment and Natural Resources .......... 3
- 337 Energy Economics and Policies .................................. 3
- 338 Land Economics ........................................... 3
- 350 Government Finance ........................................... 3
- 365 Public Utility Economics ..................................... 3
- 366 Economics of Transportation .................................. 3
- 455 Economic Efficiency in the Public Sector .................. 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:
- 370 Comparative Economic Systems ................................ 3
- 375 Economic History of the U.S. ................................... 3
- 385 Economic Development ........................................... 3
- 460 Industrial Organization ........................................ 3
- 471 Case Studies of Developing Economies .................. 3
- 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:
- 400 Problems of Economic Theory .................................. 2
- 406 History of Economic Thought .................................... 3
- 415 Econometrics .................................................. 3
- 445 Economic Fluctuations and Forecasting .................... 3
- 480 International Economics ....................................... 3
- 491 Research Seminar in Economics .................................. 3

Minor (20 semester hours)

Semester Hours
Required courses:
- 201 Principles of Economics I ..................................... 3
- 202 Principles of Economics II .................................... 3
Electives in economics .................................................. 14
Later Elementary Curriculum

Bachelor of Science Degree

State Elementary Provisional Certificate
Grades 4, 5, 6

All students must complete the required courses in each of the four areas of the Basic Studies, as specified in detail on page 35. 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.

Semester Hours

<table>
<thead>
<tr>
<th>Group I Language</th>
<th>11–12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group II Science and Mathematics</td>
<td>18</td>
</tr>
<tr>
<td>Group III Social Sciences</td>
<td>12</td>
</tr>
<tr>
<td>Group IV Education</td>
<td>29</td>
</tr>
<tr>
<td>Group V Fine Arts</td>
<td>11</td>
</tr>
<tr>
<td>Group VI Practical Arts</td>
<td>5</td>
</tr>
</tbody>
</table>

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).
207 Introduction to Children's Literature

<table>
<thead>
<tr>
<th>Group II Science and Mathematics</th>
</tr>
</thead>
<tbody>
<tr>
<td>101 Functional Mathematics</td>
</tr>
<tr>
<td>101 General Psychology</td>
</tr>
<tr>
<td>*100 Science for Elementary Teachers (Physics)</td>
</tr>
<tr>
<td>*101 Science for Elementary Teachers (Chemistry)</td>
</tr>
<tr>
<td>*202 Science for Elementary Teachers (Earth Science)</td>
</tr>
<tr>
<td>*203 Science for Elementary Teachers (Biology)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group III Social Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>110 World Regions</td>
</tr>
<tr>
<td>Continental Geography course</td>
</tr>
<tr>
<td>Either of the following:</td>
</tr>
<tr>
<td>112 American Government or 202 State and Local Government</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Humanities</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
</tr>
<tr>
<td>Two courses in literature in the English Department, two intermediate foreign language courses or two advanced foreign language literature courses.</td>
</tr>
<tr>
<td>One course in philosophy or religion.</td>
</tr>
<tr>
<td>One course in art, music or dramatic arts (automatically met in Group V courses below).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group IV Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>302 Educational Psychology</td>
</tr>
</tbody>
</table>

The starred courses in Group II Science include preparation in methods of teaching elementary school science. Courses 100, 101, 202, and 203 should be taken in sequence. Advisers should be consulted by transferes and other students where adjustments may be necessary.
1. A major of at least 30 semester hours or a group major of complete one of the following options:

- Free electives
- 381 Teaching of Mathematics K–6
- Group VI Practical Arts
- **348 Teaching Social Studies in Elementary Schools**
- **381 Teaching of Mathematics K–6**

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):

- **Arts Group Major**: Astronomy, 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, Special Education, 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. 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 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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>101 Introduction to Art</td>
<td>3</td>
</tr>
<tr>
<td>104 Elements of Music</td>
<td>2</td>
</tr>
<tr>
<td>222 Drama and Play in Human Experience</td>
<td>3</td>
</tr>
<tr>
<td>253 Industrial Technology and the Elementary Teacher</td>
<td>3</td>
</tr>
<tr>
<td>300 Creative Arts</td>
<td>3</td>
</tr>
<tr>
<td>320 Early Elementary Music Education</td>
<td>3</td>
</tr>
<tr>
<td>354 Experiences in Technology for Children</td>
<td>2</td>
</tr>
</tbody>
</table>

Electives to complete major from courses in the following:

- Fine arts, industrial education, music, drama for the young, or dramatic arts

Total: 36

#### 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.

Total: 24

Electives for the arts group major and minor may be drawn from, but are not limited to the following recommended courses:


**Industrial Education**: 102 Woodwork, 104 Graphic Arts, 105 History of Industrial Technology, 118 Energy Utilization, 121 Graphic Communications, 152 Arts and Crafts, 220时装 Metalwork.


**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

Bilingual-Bicultural Education (Spanish-English) Group Minor (24 semester hours)

Semester Hours

1. Language proficiency in both Spanish and English; proficiency will be determined by examination.
   2. Undergraduate bilingual-bicultural core curriculum ........................................... 15
   FLA 421 History and Theory of Bilingual Education .................................................. 3
   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: ................................................................. 9
   ANT 238 Ethnographic Survey ..................................................................................... 3
   ENG 302 Modern English Syntax .................................................................................. 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 ...................................................................... 2
4. Substitute CUR 327 Multicultural Practicum (5 sem hours) for CUR 326 School and Society in Group IV (Education) requirements.

The Bilingual-Bicultural Group minor leads to K-12 endorsement in Bilingual (Spanish) in Michigan. Consult with the Bilingual-Bicultural Teacher Education Programs advisor or the Department of Foreign Languages for more information.

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 241, Teaching Social Studies 348, Health Education 320; Audio-Visual 344; Physics 100; Chemistry 101; Geography 202; Biology 203, 302.

Elementary Science Group Major (36 semester hours)

Semester Hours

Required Courses: ................................................................. 16–15
100 Science for Elementary Teachers (Physics) ................................................................. 3
101 Science for Elementary Teachers (Chemistry) ............................................................. 3
202 Science for Elementary Teachers (Earth Science) ......................................................... 3
203 Science for Elementary Teachers (Biology) ............................................................... 3
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
101 Science for Elementary Teachers (Physics) ................................................................. 3
101 Science for Elementary Teachers (Chemistry) ............................................................. 3
202 Science for Elementary Teachers (Earth Science) ......................................................... 3
203 Science for Elementary Teachers (Biology) ............................................................... 3
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.

- Geography and Geology: 114 National Parks and Monuments, 223 Weather and Climate, 226 The Oceans, 227 Topographic Maps, 229 Rocks of Michigan, 230 Historical Geology, 301 Cartography, 303 Field Geography, 325 Geomorphology.

Foreign Language Minors (20 semester hours)

Semester Hours

French
343, 344 French Conversation and French Composition ................................................. 5
Electives in French, any level ......................................................................................... 5
Total ............................................................................................................................. 20

German
343, 344 German Composition and German Conversation ............................................... 5
Electives in German, any level .................................................................................... 15
Total ............................................................................................................................. 20

Spanish
343, 344 Spanish Composition and Spanish Conversation ............................................... 5
Electives in Spanish, any level .................................................................................... 15
Total ............................................................................................................................. 20
Library Science Minor (20 semester hours)
- 207 Introduction to Children's Literature .......... 3
- 314 Literature for Young Adults ................. 3
- 320 The Media Center in the School .............. 3
- 402 General Reference ........................ 3
- 404 Selection and Use of Materials .............. 3
- 405 Organization of Materials .................. 3
- 406 Storytelling or
- 409 History of Books and Libraries ............ 2

Total ........................................... 20

Also required is 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:

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Any two of the following: 100, 101, 102, 103, 251, 260</td>
<td>6</td>
</tr>
<tr>
<td>2. 210 Introduction to Shakespeare</td>
<td>3</td>
</tr>
<tr>
<td>3. 207 Introduction to Children's Literature</td>
<td>3</td>
</tr>
</tbody>
</table>

Language
- 121 or 119 English Composition .................. 3

Nine hours to be chosen from the following, three of which must be either 325 Expository Writing or 335 Imaginative Writing .... 9

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>301 Introduction to English Language</td>
<td>3</td>
</tr>
<tr>
<td>302 Modern English Syntax</td>
<td>3</td>
</tr>
<tr>
<td>320 Introduction to Linguistics</td>
<td>3</td>
</tr>
<tr>
<td>321 History of the English Language</td>
<td>3</td>
</tr>
<tr>
<td>325 Expository Writing</td>
<td>3</td>
</tr>
<tr>
<td>335 Imaginative Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

Speech and Dramatic Arts
- 121 or 124 Fundamentals of Speech .......... 2-3
- 132 Interpretive Reading ........................ 3
- 222 Drama and Play in Human Experience .... 3 / Electric 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 Speech and Dramatic Arts Department on page 133.

For the interdisciplinary major of 36 hours in Literature, Library Science, and Drama for the Young, see page 82.

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.

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>105 Introductory Sociology .................. 3</td>
<td></td>
</tr>
<tr>
<td>123 Trends in U.S. History or two history courses</td>
<td>3-6</td>
</tr>
<tr>
<td>110 World Regions ........................... 3</td>
<td></td>
</tr>
<tr>
<td>200 American Economy (or 201 Principles of Economics I)</td>
<td>3</td>
</tr>
<tr>
<td>112 American Government .................... 3</td>
<td></td>
</tr>
<tr>
<td>Social science electives ................... 9-6</td>
<td></td>
</tr>
</tbody>
</table>

Total ........................................... 24

<table>
<thead>
<tr>
<th>Required Courses:</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>253 Industrial Technology and the Elementary Teacher</td>
<td>3</td>
</tr>
<tr>
<td>354 Experiences in Technology for Children</td>
<td>2</td>
</tr>
<tr>
<td>Select two from the following:</td>
<td>6</td>
</tr>
<tr>
<td>102 Woodwork</td>
<td>3</td>
</tr>
<tr>
<td>118 Energy Utilization or 119 Consumer Automotives</td>
<td>3</td>
</tr>
<tr>
<td>122 Technical Drawing or 128 Architectural Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>123 Metal Processes</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>9</td>
</tr>
<tr>
<td>105 History of Industrial Technology</td>
<td>3</td>
</tr>
<tr>
<td>121 Graphic Communication</td>
<td>3</td>
</tr>
<tr>
<td>152 Arts and Crafts</td>
<td>3</td>
</tr>
<tr>
<td>200 Industrial Electricity</td>
<td>3</td>
</tr>
<tr>
<td>201 Construction Technology</td>
<td>3</td>
</tr>
<tr>
<td>203 Manufacturing Technology</td>
<td>3</td>
</tr>
<tr>
<td>204 Photographic Communication</td>
<td>3</td>
</tr>
<tr>
<td>217 Structure of Industry</td>
<td>3</td>
</tr>
<tr>
<td>250 Foundations of Industrial Education</td>
<td>3</td>
</tr>
<tr>
<td>350 Curriculum in Industrial Education</td>
<td>3</td>
</tr>
<tr>
<td>355 Seminar in Technology for the Elementary School</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Semester Hours ................................ 20

See also the special major and minor in mathematics for elementary teachers on page 102.

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:
- 105 Introductory Sociology .................. 3
- 123 Trends in U.S. History or two history courses | 3-6 |
- 110 World Regions ........................... 3
- 200 American Economy (or 201 Principles of Economics I) | 3 |
- 112 American Government .................... 3
- Social science electives ................... 9-6

Total ........................................... 24
PRE-ENGINEERING CURRICULUM

Adviser Chairman, Jerald A. Griess
Industrial Technology and Industrial Education Department

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 a 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

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>First Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>121 English Composition</td>
</tr>
<tr>
<td></td>
<td>120 Calculus I</td>
</tr>
<tr>
<td></td>
<td>IED 122 Technical Drawing</td>
</tr>
<tr>
<td></td>
<td>131 General Chemistry I</td>
</tr>
<tr>
<td></td>
<td>Physical education activity or military science</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>121 Calculus II</td>
</tr>
<tr>
<td></td>
<td>122 Elementary Linear Algebra</td>
</tr>
<tr>
<td></td>
<td>IED 223 Descriptive Geometry</td>
</tr>
<tr>
<td></td>
<td>223 Mechanics, Sound and Heat</td>
</tr>
<tr>
<td></td>
<td>Physical education activity</td>
</tr>
</tbody>
</table>

Second Year

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>First Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>223 Multivariable Calculus</td>
</tr>
<tr>
<td></td>
<td>224 Electricity and Light</td>
</tr>
<tr>
<td></td>
<td>PHY 230 Engineering Dynamics</td>
</tr>
<tr>
<td></td>
<td>201 Principles of Economics I</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>PHY 229 Strength and Elasticity of Materials</td>
</tr>
<tr>
<td></td>
<td>202 Principles of Economics II</td>
</tr>
<tr>
<td></td>
<td>MTH 237 Introduction to Computer Programming and Numerical Methods</td>
</tr>
<tr>
<td></td>
<td>CHM 241 Materials Science</td>
</tr>
<tr>
<td></td>
<td>Mathematics elective</td>
</tr>
</tbody>
</table>

Suggested Electives:
- 121 Fundamentals of Speech | 2
- 112 American Government | 3
- One course in history | 3
- 105 Introductory Sociology | 3
- 200 Types of Philosophy | 3
- HIS 201 The Comparative Study of Religion | 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.

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 37. 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:


Chemistry and Metallurgical Engineering: Make the following replacement in the first semester of sophomore year: 230 Engineering Dynamics with 132 General Chemistry II. The program for the second semester will be made by replacing 229 Strength and Elasticity of Materials with 281 Quantitative Analysis. Further available courses include: 371 Chemistry, Organic Chemistry; 372 Chemistry, Organic Chemistry; 461 Chemistry, Physical Chemistry.

Civil Engineering: 206 Surveying; 326 Geology, Structural Geology.

Electrical Engineering: 456 Electronics for Scientists; 452 Physics, Electrical Measurements; 325 Mathematics, Differential Equations and Vector Analysis.

Industrial Engineering: 240 Principles of Accounting.


MAJORS OFFERED IN ENGLISH

Major in Literature (30 semester hours)

A. Required courses:
1. Any two of the following:
   - 100, 101, 102, 103, 251, 260
   - 210 Introduction to Shakespeare
2. B. Restricted electives: one course in each of the following four groups:
   - 305 or 312 or 315 or 316 or 340
   - 317 or 318 or 319 or 330 or 341
   - C. Electives | 9
   - 4. 328 or 408 or 409 or 410
   - C. Electives | 9

   These electives may be chosen from any of the courses listed under restricted electives above or any of the following courses:
   - 201, 204, 245, 251, 260, 332, 333, 344, 403, 420, 430

Note: Honors courses may be substituted for restricted electives where appropriate or for regular electives. The honors courses are 298, 299, 398, 399, 498, 499.

Group Major in Literature, Language, Speech and Dramatic Arts (36 semester hours) for elementary teachers. See page 80.

Group Major in English and American Literature and Language (36 semester hours)

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.

A. Basic literature courses:
1. Any two of the following:
   - 100, 101, 102, 103, 251, 260
   - 210 Introduction to Shakespeare
2. A course in literature | 3

   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.
B. Basic language course: 3
   301 Introduction to English Language or
   302 Modern English Syntax or
   321 History of the English Language

C. Advanced writing course: 3
   215 Journalism or
   325 Expository Writing or
   335 Imaginative Writing or
   422 Writer's Workshop

D. Restricted electives: one course in each of the
   following four groups: 12
   1. 305 or 312 or 315 or 316 or 340
   2. 317 or 318 or 319 or 330 or 341
   3. 331 or 401 or 404 or 405 or 434
   4. 328 or 408 or 409 or 410

E. Electives 9

These electives may be chosen from any courses offered by
the English Department in literature, composition (including
119 Basic Composition or 121 English Composition)
or the English language, except the following: 118, 120, 350,
351, 352, and 308. 207 may be counted on this major only by
students on elementary curriculums.

Note: Honors courses may be substituted for restricted
 electives where appropriate or for regular electives. The ho­
nors courses are 298, 299, 398, 399, 498, and 499.

Students planning to teach English on the secondary level
are required to take 308 High School English in addition to
the requirements for an English major.

Students planning to teach are strongly urged to take Cur­
riculum and Instruction 311 Teaching of Secondary Read­
ing. In some cases preference is being given to applicants for
 teaching jobs who have such a reading course.

It is recommended that students anticipating graduate study in English elect 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)

A. Required Courses 15
   301 Introduction to the English Language
   302 Modern English Syntax
   320 Introduction to Linguistic Science
   321 History of the English Language
   425 Advanced English Syntax

B. Electives chosen from the following 15
   121 English Composition or
   119 Basic Composition
   210 Introduction to Shakespeare
   305 Shakespeare: The Major Comedies and Histor­
   ies
   312 Medieval Literature
   315 The Poetry of Chaucer
   340 Language and Culture (Anthropology)
   381 Symbolic Logic (Philosophy)
   420 Old English Poetry
   426 Topics in Linguistics

Major in English Language (30 semester hours)

A. Required courses in advanced writing or jour­
   nalsim (Any three of the following courses): 9
   215 Journalism
   306 Feature, Interpretive and Editorial Writing
   325 Expository Writing
   335 Imaginative Writing

B. Required courses in linguistics (Any three of
   the following courses): 9
   301 Introduction to the English Language
   302 Modern English Syntax
   320 Introduction to Linguistic Science
   321 History of the English Language
   425 Advanced English Syntax

C. Electives chosen from the following: 12
   121 English Composition or
   119 Basic Composition
   210 Introduction to Shakespeare
   215 Journalism
   301 Introduction to the English Language
   302 Modern English Syntax
   306 Feature, Interpretive and Editorial Writing
   307 Newspaper and Magazine Editing
   312 Medieval Literature
   315 The Poetry of Chaucer
   320 Introduction to Linguistic Science
   321 History of the English Language
   325 Expository Writing
   335 Imaginative Writing
   420 Old English Poetry
   422 Writer's Workshop
   425 Advanced English Syntax

Interdisciplinary Major in Literature, Library Science, and
Drama for the Young (36 semester hours)

This major may be used on the elementary education cur­
riculum 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: 100, 101, 102,
   103, 210, 251, 260 Literature 6
   121 or 124 Fundamentals of Speech 2–3
   207 Introduction to Children’s Literature 3
   350 Critical Evaluation of
   Children’s Literature 3
   322 Drama and Play in Human Experience 3
   323 Improvisation 3
   324 Oral Interpretation of
   Children’s Literature 3
   351 or 352 Folk Literature 3
B. Electives chosen from the following: 9–10
   204 American Indian Myths, Tales and Legends
   210 Introduction to Shakespeare
   251 Bible as Literature
   351 Folk Literature: Gods and Heroes
   352 Folk Literature: Ballads and Folktales
   401 Modern American and British Poetry
   132 Interpretative Reading
   168, 268, 368, 468 Interpretation
   322 Theatre for Children
   422, 423, 424 Independent Study in Drama for
   the Young (only one may be taken)
   314 Literature for Young Adults
   406 Storytelling
   409 History of Books and Libraries

MINORS OFFERED IN ENGLISH

An additional four hours beyond the minimum 20 hours for
graduation must be completed to meet North Central Associa­
tion 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
(20–24 semester hours)

Semester Hours
1. Any two of the following:
   100, 101, 102, 103, 251, 260 6
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>301</td>
<td>Introduction to the English Language</td>
<td>3</td>
</tr>
<tr>
<td>302</td>
<td>Modern English Syntax</td>
<td>3</td>
</tr>
<tr>
<td>320</td>
<td>Introduction to Linguistic Science</td>
<td>3</td>
</tr>
<tr>
<td>321</td>
<td>History of the English Language</td>
<td>3</td>
</tr>
<tr>
<td>325</td>
<td>Expository Writing</td>
<td>3</td>
</tr>
<tr>
<td>331</td>
<td>Imaginative Writing</td>
<td>3</td>
</tr>
<tr>
<td>335</td>
<td>Imaginative Writing</td>
<td>3</td>
</tr>
<tr>
<td>420</td>
<td>Old English Poetry</td>
<td>3</td>
</tr>
<tr>
<td>425</td>
<td>Advanced English Syntax</td>
<td>3</td>
</tr>
<tr>
<td>426</td>
<td>Topics in Linguistics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Minor in English Language (21–24 semester hours)**

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any two of the following:</td>
<td>6</td>
</tr>
<tr>
<td>100, 101, 102, 103, 251, 260</td>
<td></td>
</tr>
<tr>
<td>210 Introduction to Shakespeare</td>
<td>3</td>
</tr>
<tr>
<td>301 Introduction to the English Language</td>
<td>3</td>
</tr>
<tr>
<td>302 Modern English Syntax</td>
<td>3</td>
</tr>
<tr>
<td>320 Introduction to Linguistic Science</td>
<td>3</td>
</tr>
<tr>
<td>321 History of the English Language</td>
<td>3</td>
</tr>
<tr>
<td>Three of the following:</td>
<td>9</td>
</tr>
<tr>
<td>204, 210, 251, 351, 352</td>
<td></td>
</tr>
</tbody>
</table>

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)**

<table>
<thead>
<tr>
<th>Required courses (any two of the following courses):</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>301 Introduction to the English Language</td>
<td></td>
</tr>
<tr>
<td>302 Modern English Syntax</td>
<td></td>
</tr>
<tr>
<td>320 Introduction to Linguistic Science</td>
<td></td>
</tr>
<tr>
<td>321 History of the English Language</td>
<td></td>
</tr>
<tr>
<td>B. Electives chosen from the following:</td>
<td>15–18</td>
</tr>
<tr>
<td>121 English Composition or 119 Basic Composition</td>
<td></td>
</tr>
<tr>
<td>210 Introduction to Shakespeare</td>
<td></td>
</tr>
<tr>
<td>301 Introduction to the English Language</td>
<td></td>
</tr>
<tr>
<td>302 Modern English Syntax</td>
<td></td>
</tr>
<tr>
<td>312 Medieval Literature</td>
<td></td>
</tr>
<tr>
<td>315 The Poetry of Chaucer</td>
<td></td>
</tr>
<tr>
<td>320 Introduction to Linguistic Science</td>
<td></td>
</tr>
<tr>
<td>321 History of the English Language</td>
<td></td>
</tr>
</tbody>
</table>

**CURRICULUM FOR FAMILY LIFE**

**Bachelor of Science Degree**

Adviser Chairperson, Betty Lou Barber  
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 35. 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. This particular curriculum, major, or minor requirements do specify both course 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**

<table>
<thead>
<tr>
<th>Group I Language</th>
<th>8-9</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course in English composition or, if eligible, a foreign language course.</td>
<td></td>
</tr>
<tr>
<td>One course in fundamentals of speech.</td>
<td></td>
</tr>
<tr>
<td>One elective course in English language, in a foreign language, in speech, or in library science (Group I).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group II Science and Mathematics</th>
<th>12-13</th>
</tr>
</thead>
<tbody>
<tr>
<td>101 or 102 General Psychology</td>
<td>3-4</td>
</tr>
<tr>
<td>105 Survey of Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>115 Physics in the Modern Home</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group III Social Sciences</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>One history course</td>
<td>3</td>
</tr>
<tr>
<td>105 Introductory Sociology and One of the following:</td>
<td>6</td>
</tr>
<tr>
<td>202 Social Problems</td>
<td></td>
</tr>
<tr>
<td>214 Racial and Cultural Minorities</td>
<td></td>
</tr>
<tr>
<td>306 The Urban Community</td>
<td></td>
</tr>
<tr>
<td>308 Social Psychology</td>
<td></td>
</tr>
<tr>
<td>One course in American government selected from:</td>
<td></td>
</tr>
<tr>
<td>112 American Government or 202 State and Local Government</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Humanities</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.</td>
<td></td>
</tr>
<tr>
<td>One course in philosophy or religion.</td>
<td>3</td>
</tr>
<tr>
<td>105 Integrated Arts</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group IV Education</th>
<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td>(For those desiring a Secondary Provisional Teaching Certificate)</td>
<td></td>
</tr>
<tr>
<td>320 Human Growth and Development</td>
<td>4</td>
</tr>
<tr>
<td>326 School and Society</td>
<td>6</td>
</tr>
<tr>
<td>370 Methods and Materials in Consumer and Home Economics Education</td>
<td>2</td>
</tr>
<tr>
<td>375 Resources in Teaching Family Life Education</td>
<td>2</td>
</tr>
<tr>
<td>418 Seminar in Education</td>
<td>2</td>
</tr>
<tr>
<td>492 Student Teaching</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group VI Practical Arts [Family Life Major]</th>
<th>36</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studies area—Groups I, II, III and Humanities</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Foundation Courses</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 The Family as Environment</td>
<td>2</td>
</tr>
<tr>
<td>400 The Family in Environment</td>
<td>2</td>
</tr>
</tbody>
</table>

**Application Courses**

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>8-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select at least one (1) course in each area</td>
<td></td>
</tr>
<tr>
<td><strong>Clothing and Textiles</strong></td>
<td></td>
</tr>
<tr>
<td>114 Clothing for Consumers</td>
<td>3</td>
</tr>
<tr>
<td>118 Clothing Principles</td>
<td>2</td>
</tr>
<tr>
<td>235 Textiles for Consumers</td>
<td>3</td>
</tr>
<tr>
<td><strong>Consumer Affairs and Education</strong></td>
<td></td>
</tr>
<tr>
<td>112 Family Resources</td>
<td>2</td>
</tr>
<tr>
<td>271 Household Equipment</td>
<td>3</td>
</tr>
<tr>
<td>285 Home Management</td>
<td>3</td>
</tr>
<tr>
<td><strong>Foods and Nutrition</strong></td>
<td></td>
</tr>
<tr>
<td>102 Family Food Management</td>
<td>2</td>
</tr>
<tr>
<td>107 Food for Man</td>
<td>2</td>
</tr>
<tr>
<td>116 Foods for Consumers</td>
<td>3</td>
</tr>
<tr>
<td>201 Nutrition for the Family</td>
<td>3</td>
</tr>
<tr>
<td><strong>Interior Design and Housing</strong></td>
<td></td>
</tr>
<tr>
<td>208 Basic Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>269 Ecological View of Housing</td>
<td>3</td>
</tr>
<tr>
<td>350 Historic Near Environment</td>
<td>2</td>
</tr>
<tr>
<td>352 Contemporary Near Environment</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specialization Courses</th>
<th>24-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses (20 hours)</td>
<td></td>
</tr>
<tr>
<td>109 Interpersonal Relations in the Family</td>
<td>2</td>
</tr>
<tr>
<td>207 Living with Young Children</td>
<td>3</td>
</tr>
<tr>
<td>209 Marriage and Interpersonal Competence</td>
<td>3</td>
</tr>
<tr>
<td>308 Infant Care and Guidance</td>
<td>3</td>
</tr>
<tr>
<td>361 Issues in Family Life</td>
<td>3</td>
</tr>
<tr>
<td>414 Field Experience in Home Economics (Families)</td>
<td>3</td>
</tr>
<tr>
<td>461 Family Interaction</td>
<td>3</td>
</tr>
</tbody>
</table>

Suggested additional electives to complete the 36 hour major (0-4 hours):

*323 Interdisciplinary Study of Clothing | 3 |
*305 Family Development: Middle Childhood | 3 |
*322 Family Financial Planning | 3 |
*399 The Consumer in the Economy | 3 |

**Group VII**

<table>
<thead>
<tr>
<th>Physical Education and Health</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical education activity courses</td>
<td>4</td>
</tr>
</tbody>
</table>

**Note:** Two semester hours of military science may be applied toward this requirement.

**Free electives**

<table>
<thead>
<tr>
<th>18-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
</tr>
<tr>
<td>124</td>
</tr>
</tbody>
</table>

**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)

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>17</th>
</tr>
</thead>
<tbody>
<tr>
<td>109 Interpersonal Relations in the Family</td>
<td>2</td>
</tr>
<tr>
<td>207 Living with Young Children</td>
<td>3</td>
</tr>
<tr>
<td>209 Marriage and Interpersonal Competence</td>
<td>3</td>
</tr>
<tr>
<td>308 Infant Care and Guidance</td>
<td>3</td>
</tr>
<tr>
<td>361 Issues in Family Life</td>
<td>3</td>
</tr>
<tr>
<td>461 Family Interaction</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives chosen from the following**

<table>
<thead>
<tr>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>107 Food for Man</td>
</tr>
<tr>
<td>112 Family Resources</td>
</tr>
<tr>
<td>213 Family Health Care</td>
</tr>
<tr>
<td>269 Ecological View of Housing</td>
</tr>
<tr>
<td>285 Home Management</td>
</tr>
<tr>
<td>303 Interdisciplinary Study of Clothing</td>
</tr>
<tr>
<td>305 Family Development: Middle Childhood</td>
</tr>
<tr>
<td>322 Family Financial Planning</td>
</tr>
</tbody>
</table>

*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.*
CURRICULUM FOR
FASHION MERCHANDISING

Bachelor of Science Degree

Adviser Chairperson, Betty Lou Barber
Home Economics Department

The fashion merchandising major is specifically designed for students who plan to enter the business field of clothing and textiles.

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 35. This same page indicates how students may choose an alternate way of meeting 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

<table>
<thead>
<tr>
<th>Group I Language</th>
<th>8–9</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course in English composition or, if eligible, a foreign language course.</td>
<td></td>
</tr>
<tr>
<td>One course in fundamentals of speech.</td>
<td></td>
</tr>
<tr>
<td>One elective course in English language, in a foreign language, in speech or in library science (Group II).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group II Science and Mathematics</th>
<th>10–12</th>
</tr>
</thead>
<tbody>
<tr>
<td>One laboratory science course.</td>
<td></td>
</tr>
<tr>
<td>A second laboratory science course or a course in mathematics.</td>
<td></td>
</tr>
<tr>
<td>101 General Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group III Social Sciences</th>
<th>9–12</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course in American government selected from:</td>
<td></td>
</tr>
<tr>
<td>112 American Government or</td>
<td></td>
</tr>
<tr>
<td>202 State and Local Government</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group IV Humanities</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two courses in literature in the English Department, or two intermediate foreign language courses, or two advanced foreign language literature courses.</td>
<td></td>
</tr>
<tr>
<td>One course in philosophy or religion.</td>
<td></td>
</tr>
</tbody>
</table>

### Group VI Practical Arts
(Fashion Merchandising Major)

<table>
<thead>
<tr>
<th>Foundation Courses</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 The Family as Environment</td>
<td>2</td>
</tr>
<tr>
<td>400 The Family in Environment</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Application Courses</th>
<th>8–12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select at least one (1) course from each area outside of the area of specialization</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Consumer Affairs and Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>112 Family Resources</td>
</tr>
<tr>
<td>271 Household Equipment</td>
</tr>
<tr>
<td>285 Home Management</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Family Life and Child Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>109 Interpersonal Relations in the Family</td>
</tr>
<tr>
<td>207 Living with Young Children</td>
</tr>
<tr>
<td>209 Marriage and Interpersonal Competence</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Foods and Nutrition</th>
</tr>
</thead>
<tbody>
<tr>
<td>102 Family Food Management</td>
</tr>
<tr>
<td>107 Food for Man</td>
</tr>
<tr>
<td>116 Foods for Consumers</td>
</tr>
<tr>
<td>201 Nutrition for the Family</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interior Design and Housing</th>
</tr>
</thead>
<tbody>
<tr>
<td>208 Basic Interior Design</td>
</tr>
<tr>
<td>269 Ecological View of Housing</td>
</tr>
<tr>
<td>350 Historic Near Environment</td>
</tr>
<tr>
<td>352 Contemporary Near Environment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specialization Courses</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses</td>
<td>21</td>
</tr>
<tr>
<td>114 Clothing for Consumers</td>
<td>3</td>
</tr>
<tr>
<td>235 Textiles for Consumers</td>
<td>3</td>
</tr>
<tr>
<td>245 Fashion Analysis</td>
<td>3</td>
</tr>
<tr>
<td>302 Experimental Clothing</td>
<td>3</td>
</tr>
<tr>
<td>303 Interdisciplinary Study of Clothing</td>
<td>3</td>
</tr>
<tr>
<td>345 Fashion Merchandising</td>
<td>3</td>
</tr>
<tr>
<td>437 Professional Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Restricted Electives</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>119 Early American Textiles</td>
<td>2</td>
</tr>
<tr>
<td>210 Display Techniques</td>
<td>2</td>
</tr>
<tr>
<td>390 Demonstration Techniques</td>
<td>3</td>
</tr>
<tr>
<td>392 Pattern Design</td>
<td>3</td>
</tr>
<tr>
<td>404 Textile Testing</td>
<td>3</td>
</tr>
<tr>
<td>414 Field Experience in Home Economics (Fashion)</td>
<td>3</td>
</tr>
<tr>
<td>439 Fashion Markets</td>
<td>2</td>
</tr>
<tr>
<td>460 Tailoring</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group VII Physical Education and Health</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical education activity courses</td>
<td>4</td>
</tr>
</tbody>
</table>

Note: Two semester hours of military science may be applied toward this requirement.

Free electives | 38–33 |

Total | 124 |

Utilizing some free electives and any appropriate basic studies courses, students on this curriculum must complete a minor of 20–24 hours to meet graduation requirements. A marketing minor is recommended.
FINANCE
Administered by the 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).

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.

Semester Hours

Required courses ............................................. 3
357 Financial Markets ........................................... 3
358 Analysis of Financial Statements ..................... 3
359 Intermediate Financial Theory ......................... 3
450 Problems in Financial Management .................. 3

Restricted Electives ......................................... 12
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
RES 310 Real Estate Finance ................................ 3
ORI 465 Business Statistics II ............................... 3

Investment Analysis Concentration

The investment concentration is designed for students with interests in analyzing and managing stock, bond 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.

Semester Hours

Required courses ............................................. 12
354 Investments .............................................. 3
358 Analysis of Financial Statements ..................... 3
359 Intermediate Financial Theory ......................... 3
451 Portfolio Management .................................... 3

Elective Courses ............................................. 9
354 Investments .............................................. 3
358 Analysis of Financial Statements ..................... 3
450 Problems in Financial Management .................. 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:

Semester Hours

Finance minor .................................................. 21
Required ....................................................... 12
240 Principles of Accounting ................................ 3
241 Principles of Accounting ................................ 3
350 Principles of Finance .................................... 3
359 Intermediate Financial Theory ......................... 3

Elective Courses ............................................. 9
354 Investments .............................................. 3
358 Analysis of Financial Statements ..................... 3
450 Problems in Financial Management .................. 3
451 Portfolio Management .................................... 3
453 Commercial Banking ..................................... 3

PRE-FORESTRY CURRICULUM
Adviser Chairman, Max E. Adler
Biology Department

This curriculum is designed to meet the needs of the majority of students who will later major in such diverse fields as wildlife management, fisheries, biology, forestry and conservation education. However, students entering one of these fields are reminded that forestry schools set their own requirements for admission, and thus it is imperative that exact requirements be obtained from current catalogs of the schools in which they are interested in completing their professional training. Therefore, some flexibility is allowed in the following suggested sequence of courses to meet the needs of individual students.

First Year

Semester Hours

First Semester ............................................... 16
*120 Calculus I .............................................. 4
111 Fundamentals of Chemistry ........................... 4
121 English Composition .................................... 3
*106 Orientation to Biology ................................ 2
Physical education activity or military science .......... 1
Electives ....................................................... 2

Second Semester ............................................ 15
120 Fundamentals of Chemistry ........................... 4
221 General Botany .......................................... 4
105 Introductory Sociology .................................. 3

*If the student received a grade below “B” in high school trigonometry and advanced algebra, he should elect 105 Algebra and 107 Trigonometry before electing this course.
**106 Biology is required as a prerequisite for 221 Botany and 222 Zoology. Freshmen entering the pre-forestry program should take the 106 Biology if they had a year of high school biology. If qualified for 106 Biology, the student should take the course during his first semester on the campus and delay 221 General Botany until the following semester. Students without a year of high school biology begin with 105 Biology and The Human Species.
| Physical education activity or military science | 1 |
| ***Electives | 3 |

## Second Year

### First Semester
- 201 Principles of Economics I | 3 |
- 222 General Zoology | 4 |
- One course in history | 3 |
- 121 Fundamentals of Speech | 2 |

### Second Semester
- PHY 222 Electricity and Light | 4 |
- 202 Principles of Economics II | 3 |
- ENG 215 Journalism | 3 |
- 302 Systematic Botany or 310 Plant Physiology | 3 |
- IED 206 Surveying | 3 |

The general requirement for admission with junior standing to a professional school is 60 semester hours of credit. Some schools do not include credit for physical education activity or military science within that minimum, and the students planning to enroll in such a school should increase their load accordingly.

Also, many professional schools require attendance at a summer camp between the sophomore and junior or between the junior and senior years. Thus, it is imperative that the students complete prerequisites for these courses early and take this into account when planning financial affairs for their junior and senior years.

In some cases a student will find it advantageous to earn a bachelor's degree before entering professional training. The student may do so by continuing for two more academic years at EMU and observing the requirements prescribed for that degree (including physical education activity course requirements). A student electing to follow this plan should allow an extra year to complete graduate work in the professional school, however.

### FRENCH

Administered by the Department of Foreign Languages

#### Major in Language and Literature (30 semester hours)

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>341, 342 Survey of French Literature</td>
</tr>
<tr>
<td>343 French Composition and 344 French Conversation</td>
</tr>
<tr>
<td>443 French Syntax and 444 Advanced French Conversation</td>
</tr>
<tr>
<td>Courses on the 400 level</td>
</tr>
<tr>
<td>Electives in French at any level</td>
</tr>
</tbody>
</table>

Students majoring in French will also take 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 or planning to continue with graduate work carry their work beyond the minimum. Many graduate schools require additional work in literature.

#### Major in Business Language (30 semester hours)

<table>
<thead>
<tr>
<th>Semester hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>341, 342 Survey of French Literature</td>
</tr>
</tbody>
</table>

***Students may elect 108 Earth Science, 122 Technical Drawing or other electives, such as 315 Land Use Planning or 495 Environmental Impact Assessment.

### MINORS OFFERED IN FRENCH

#### I. Minor in Language and Literature (20 semester hours)

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>341, 342 Survey of French Literature</td>
</tr>
<tr>
<td>343 French Composition and 344 French Conversation</td>
</tr>
<tr>
<td>Electives in French, at any level</td>
</tr>
</tbody>
</table>

#### II. Minor in French Language* (20 semester hours)

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>343 French Composition and 344 French Conversation</td>
</tr>
<tr>
<td>443 French Syntax and 444 Advanced French Conversation</td>
</tr>
<tr>
<td>Electives in French, at any level</td>
</tr>
</tbody>
</table>

#### III. Minor in French Literature (20 semester hours)

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>341, 342 Survey of French Literature</td>
</tr>
<tr>
<td>Courses in French literature on the 400 level</td>
</tr>
<tr>
<td>Electives in French, at any level</td>
</tr>
</tbody>
</table>

#### IV. Minor in Business Language (20 semester hours)

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>343 French Composition and 344 French Conversation</td>
</tr>
<tr>
<td>443 French Syntax and 444 Advanced French Conversation</td>
</tr>
<tr>
<td>445 French Diction</td>
</tr>
<tr>
<td>446 Business French</td>
</tr>
<tr>
<td>Electives at any level</td>
</tr>
</tbody>
</table>

Students minoring in Business Language can also obtain the C.C.I.P. Diploma (see Language and Business, and Majors.)

### GENERAL BUSINESS

Administered by the Management Department

#### General Business Major (24 semester hours)

(To be completed in conjunction with the Bachelor of Business Administration degree).

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
</tr>
<tr>
<td>INS 351 Introduction to Risk and Insurance</td>
</tr>
<tr>
<td>MKT 368 Marketing Strategy</td>
</tr>
<tr>
<td>MGT 368 Organization Theory and Development</td>
</tr>
<tr>
<td>Restricted Electives</td>
</tr>
<tr>
<td>(Elect courses, approved by the academic advisers, from at least three of the following areas: A minimum of six hours must be at the 400 level.)</td>
</tr>
<tr>
<td>Accounting and Finance</td>
</tr>
<tr>
<td>Administrative Services and Business Education Management Marketing Operations Research and Information Systems</td>
</tr>
</tbody>
</table>

*Minor in French on the elementary curriculums, see page 79.
General Business Minor (20 semester hours)
(a non-teaching minor for non-business majors)

Semester Hours

Required Courses .......................... 9
ACC 240 Principles of Accounting ........... 3
ACC 241 Principles of Accounting .......... 3
ADS 303 Legal Environment of Business .... 3

Electives from the following .................. 9
ORI 215 Computers in Business .................. 3
MGT 302 Business Communication .......... 3
ADS 304 Law of Business Enterprise ...... 3
ORI 316 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

GENERAL SCIENCE

Adviser Chairman: Daniel Trochet
Department of Physics & 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. If planning to teach, they will take in addition an appropriate methods course. The selection of all the courses to fulfill these requirements must be approved by the head of the department in which the student proposes to minor, and no course not so approved shall be counted toward meeting these requirements for graduation.

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 204 Principles of Conservation ....... 4
**CHM 131 General Chemistry I ........... 4
GEO 108 Earth Science .................. 4
GEO 223 Weather and Climate ........... 3
***MTH 105 Higher Algebra ............ 3
MTH 107 Plane Trigonometry ........... 3
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 .................. 2
MTH 107 Plane Trigonometry ........... 2
MTH 137 Introduction to Computer Programming 3
PHY 112 Physical Science II ........... 4

Students wishing to major in one science and yet qualify for teaching general science may elect the program immediately above.

GEOGRAPHY

Geography Major (30 semester hours)

Semester Hours

Required courses for a major in geography:

108 Earth Science .................. 3
110 World Regions .................. 3
Two of the following techniques courses .... 6
301 Cartography
303 Field Geography
470 Quantitative Methods in Geography and Geology
One of the following physical courses .......... 2–3
223 Weather and Climate
226 Oceans
325 Geomorphology
327 Soil Science
Two of the following systematic courses ....... 6
235 Economic Geography
332 Urban Geography
360 Cultural Geography
361 Population Geography
431 Historical Geography of the U.S.
432 Political Geography
One of the following regional courses .......... 3
203 Geography of Asia
205 Geography of Europe
211 Geography of the U.S. and Canada
321 Geography of Latin America
322 Geography of Africa

*Students exempted from 105 Biological Science will take either 221 General Botany or 222 General Zoology.
**Chemistry 119 and 120 may be substituted for Chemistry 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.
323 Geography of Australia and Pacific Islands
359 Geography of the U.S.S.R.
*Electives 6–5

Geography majors who are candidates for secondary teacher certification will take, in addition, 347 Teaching Earth Science and Physical Geography, three semester hours in Group IV.

Geography Minor (20 semester hours)

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>Required courses for a minor in geography:</th>
</tr>
</thead>
<tbody>
<tr>
<td>108 Earth Science</td>
<td>4</td>
</tr>
<tr>
<td>110 World Regions</td>
<td>3</td>
</tr>
</tbody>
</table>

*Electives 13

It is highly recommended that geography minors who are candidates for secondary teacher certification take, in addition, 347 Teaching Earth Science and Physical Geography, three semester hours in Group IV.

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: 203, 205, 211, 313, 321, 322.

GEOL OGY

Geology Major (30 semester hours)

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>Required courses for a major in geology:</th>
</tr>
</thead>
<tbody>
<tr>
<td>108 Earth Science</td>
<td>4</td>
</tr>
<tr>
<td>228 Mineralogy</td>
<td>3</td>
</tr>
<tr>
<td>230 Historical Geology</td>
<td>3</td>
</tr>
<tr>
<td>231 Historical Geology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>326 Structural Geology</td>
<td>3</td>
</tr>
<tr>
<td>329 Petrology</td>
<td>3</td>
</tr>
<tr>
<td>330 Sedimentation and Stratigraphy</td>
<td>3</td>
</tr>
</tbody>
</table>

**Field Geology 4–8
*Electives 6–2

Geology majors who are candidates for secondary teacher certification will take, in addition, 347 Teaching Earth Science and Physical Geography, three semester hours in Group IV.

Geology Minor (20 semester hours)

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>Required courses for a minor in geology:</th>
</tr>
</thead>
<tbody>
<tr>
<td>108 Earth Science</td>
<td>4</td>
</tr>
<tr>
<td>228 Mineralogy</td>
<td>3</td>
</tr>
<tr>
<td>230 Historical Geology</td>
<td>3</td>
</tr>
<tr>
<td>326 Structural Geology</td>
<td>3</td>
</tr>
<tr>
<td>329 Petrology</td>
<td>3</td>
</tr>
</tbody>
</table>

*Electives 5

It is highly recommended that geology minors who are candidates for secondary teacher certification take, in addition, 347 Teaching Earth Science and Physical Geography, three semester hours in Group IV.

GERONTOLOGY MINOR

(Non-Teaching)

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 (masters 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 Dean of the College of Human Services through an advisory council of four persons, one each from the core course departments (Educational Psychology, Psychology and Sociology) and one from the College of Human Services. A Department of Health, Education, and Welfare grant has been received to assist in the implementation of this minor.

*For a minor in German for the elementary curriculum, see page 79.
Current Gerontology Advisory Council members:

- Israel Woronoff, Chairperson
- Educational Psychology
- Francis M. Canter
- Psychology
- Marianne Maynard
- Occupational Therapy
- Gordon E. Moss
- Sociology

The minor includes 13 hours of core courses, required of all students (unless specifically and justifiably waived by the gerontology adviser), and 11 hours of elective courses subject to approval of the gerontology adviser. As a part of these 24 hours, the student may apply up to 4 hours of supervised practicum work in an approved setting or of research in aging.

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 323</td>
<td>3</td>
</tr>
<tr>
<td>SOC 311</td>
<td>3</td>
</tr>
<tr>
<td>SWK 422</td>
<td>3</td>
</tr>
<tr>
<td>EDP 320</td>
<td>4</td>
</tr>
<tr>
<td>Approved electives</td>
<td>11</td>
</tr>
</tbody>
</table>

Below are suggested electives but, to be applied on the minor, every elective must be approved by the gerontology adviser. Any course in the University may be considered and used with specific approval of the gerontology adviser. Generally, however, courses will be selected from the following list. Courses marked with an asterisk (*) are strongly recommended. Courses marked with double asterisk (**) are required for preparation to teach in Occupational Health Service programs (see description below).

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADS 308</td>
<td>3</td>
</tr>
<tr>
<td>ANT 329</td>
<td>3</td>
</tr>
<tr>
<td>G&amp;C 405</td>
<td>2</td>
</tr>
<tr>
<td>HIS 235</td>
<td>3</td>
</tr>
<tr>
<td>HEC 112</td>
<td>2</td>
</tr>
<tr>
<td>**HEC 201</td>
<td>3</td>
</tr>
<tr>
<td>**HEC 213</td>
<td>2</td>
</tr>
<tr>
<td>MUS 103</td>
<td>1</td>
</tr>
<tr>
<td>MUS 324</td>
<td>2</td>
</tr>
<tr>
<td>PED 150</td>
<td>3</td>
</tr>
<tr>
<td>PED 250</td>
<td>2</td>
</tr>
<tr>
<td>PED 480</td>
<td>2</td>
</tr>
<tr>
<td>PSY 360</td>
<td>3</td>
</tr>
<tr>
<td>PSY 451</td>
<td>3</td>
</tr>
<tr>
<td>SOC 312</td>
<td>3</td>
</tr>
<tr>
<td>SWK 112</td>
<td>3</td>
</tr>
<tr>
<td>**SWK 216</td>
<td>4</td>
</tr>
<tr>
<td>SWK 216</td>
<td>3</td>
</tr>
<tr>
<td>SWK 216</td>
<td>3</td>
</tr>
</tbody>
</table>

Up to 10 hours of the following graduate courses may be applied on this minor as electives by qualified seniors (85 or more completed academic hours and at least a 2.5 grade point average) with proper prerequisites.

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>*EDL 556</td>
<td>2</td>
</tr>
<tr>
<td>G&amp;C 505</td>
<td>2</td>
</tr>
<tr>
<td>**HEC 532</td>
<td>2</td>
</tr>
<tr>
<td>**HEC 544</td>
<td>2</td>
</tr>
<tr>
<td>**HEC 595</td>
<td>2</td>
</tr>
<tr>
<td>PED 522</td>
<td>2</td>
</tr>
<tr>
<td>*PSY 551</td>
<td>2</td>
</tr>
</tbody>
</table>

Practicum and Research

Practicum experience is normally very valuable to the student in gerontology, and up to 4 hours of practicum or research credits may be applied on the minor. Practicum credit may be earned in any or a combination of the following courses, to be worked out with the gerontology adviser. Each semester hour of credit requires as a minimum approximately 50 clock-hours of supervised practicum in approved supervised settings with the agreement of the practicum facility. As a rule, HEC 414 and OT 496 are open only to students who are majors in those curriculums, but the other practicum courses are available to students of any curriculum with appropriate prerequisites or permission.

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>**HEC 414</td>
<td>3</td>
</tr>
<tr>
<td>**OT 496</td>
<td>4</td>
</tr>
<tr>
<td>PSY 370</td>
<td>4</td>
</tr>
<tr>
<td>*SWK 317</td>
<td>2</td>
</tr>
<tr>
<td>*SWK 400</td>
<td>4</td>
</tr>
<tr>
<td>*SWK 401</td>
<td>4</td>
</tr>
</tbody>
</table>

Psychology 391-392-393 (1-2-3 sem hrs.) provide opportunity to develop an independent research project under the guidance of a psychology department faculty member. A recommended prerequisite for research work is a course in statistics and research design. Such a project involves formulation of a problem, development of a methodology, collection and analysis of data, and a written report of the results.

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 must select the double-asterisk (**) 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 PEC 103 Couple, Square, and Ballroom Dancing, PEC 158 Folk Dancing, or other appropriate leisure activity skills.

HEALTH

Administered by the 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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological Science</td>
<td></td>
</tr>
<tr>
<td>PED 150</td>
<td>3</td>
</tr>
<tr>
<td>(Fall Term Only)</td>
<td></td>
</tr>
</tbody>
</table>
Behavioral Science
SOC 105 Introductory Sociology ............... 3
SOC 204 Marriage and Family ................. 3
PSY 321 Child Psychology or
322 Psychology of Adolescence ............. 3

Professional Health Education
PED 250 Psychosocial Concepts of Health ..... 2
(Winter Term Only)
*PED 320 Health Education for Elementary
Grades or
330 Health Work in the Schools ............. 2
PED 430 Community Health Resources ....... 2
(Fall Term Only)
Electives as approved by health education ad­
visers.

HISTORY

Major (30 semester hours)
Required courses:
101 or 102 History of Western Civilization 3
223 or 224 U.S. History or
123 Major Trends in U.S. History and
Any other U.S. history course ............... 6
333 Europe Since 1919 ..................... 3
One course from the following list:
301, 302, 340, 341, 342, 355, 356, 357,
371, 373, 374, 375, 377, 378 ............... 3
Electives .................................. 15
Note: Students majoring in history on a secondary
teacher's certificate program will take, in addition, 481
Teaching of Social Studies.

No more than three 100-level courses may be taken for
credit toward the history major. Further, 201 The Compara­
tive Study of Religion may not be used for credit on the
history major.

No more than two of the three U.S. History surveys (123,
223, 224) may be used for credit on the history major or
minor.

Minor (20 semester hours)

Semester Hours
Required courses:
101 or 102 History of Western Civilization 3
123 Major Trends in U.S. History, or
223 U.S. History to 1877, or
224 U.S. History since 1877 ............... 3
One of the following courses:
301, 302, 340, 341, 342, 355, 356, 357,
371, 373, 374, 375, 377, 378 ............... 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 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 201 The Compara­
tive Study of Religion nor 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 (123,
223, 224) may be used for credit on the history major or
minor.

*Students may not take both PED 320 and PED 330.
CURRICULUM IN
GENERAL HOME ECONOMICS

Bachelor of Science Degree

Adviser Chairperson, Betty Lou Barber
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 and Home Economics Education on page 65.

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 35. 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**
- 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**
- 105 Survey of Chemistry
- 115 Physics in the Modern Home
- 101 General Psychology

**Group III Social Sciences**
- One course in American government selected from:
  - 112 American Government or
  - 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**
- 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.
- 105 Integrated Arts

**Group VI Practical Arts**
- (Home Economics Major)

**Foundation Courses**
- 200 The Family as Environment
- 400 The Family in Environment

**Application Courses**
- Select at least two (2) courses from each area.

- **Clothing and Textiles**
  - 114 Clothing for Consumers
  - 118 Clothing Principles
  - 235 Textiles for Consumers
  - 302 Experimental Clothing
  - 301 Interdisciplinary Study of Clothing
  - 392 Pattern Design

- **Consumer Affairs and Education**
  - 112 Family Resources
  - 271 Household Equipment
  - 285 Home Management
  - 322 Family Financial Management
  - 399 The Consumer in the Ecology

- **Family Life and Child Development**
  - 109 Interpersonal Relations in the Family
  - 207 Living with Young Children
  - 209 Marriage and Interpersonal Competence
  - 361 Issues in Family Life

- **Foods and Nutrition**
  - 102 Family Food Management
  - 116 Foods for Consumers
  - 201 Nutrition for the Family
  - 213 Family Health Care
  - 251 Meal Management
  - 412 Nutrition of the Life Cycle

- **Interior Design and Housing**
  - 208 Basic Interior Design
  - 269 Ecological View of Housing
  - 350 Historic Near Environment
  - 352 Contemporary Near Environment

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

**Free electives**

Total **124**

### GENERAL HOME ECONOMICS MINOR

(20-24 **semester hours)**

**Required Courses**
- 200 The Family as Environment

**Electives chosen from the following must include at least one course from each of the groups**

- **Clothing and Textiles**
  - 235 Textiles for Consumers
  - 302 Experimental Clothing
  - 3 Consumer Affairs and Education
  - 271 Household Equipment
  - 285 Home Management
  - 207 Living with Young Children
  - 209 Marriage and Interpersonal Competence

**Semester Hours**

- 2
- 18
- 3
- 2
- 3
- 3

*Students in the curriculum in General Home Economics should select their minor from Child Care Guidance Services, Family Life, or Nutrition.

**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.*
INDIVIDUALIZED INTERDISCIPLINARY CONCENTRATION

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. For example, for a student interested in black studies, broadcast management, "pop" music recording and promotion, minority community leadership, or any number of other "academic" or "practical" specialized educational goals this program might well meet a need.

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.

CURRICULUM FOR TEACHERS OF INDUSTRIAL EDUCATION

Bachelor of Science Degree

Secondary Provisional Certificate
Vocational Trade and Industrial Certificate*

Adviser Chairman, Gerald Jennings

This curriculum prepares teachers of industrial arts and industrial-vocational subjects for the middle school, junior high and senior high grades. It offers a broad-based description of modern industry and technology, with the opportunity to develop specialized competencies in construction, manufacturing, graphic communication or power.

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 35. 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
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>One course in English composition or, if eligible, a foreign language course.</td>
</tr>
<tr>
<td></td>
<td>One course in fundamentals of speech.</td>
</tr>
<tr>
<td></td>
<td>One elective course in English language, in a foreign language, in speech, or in library science (Group I).</td>
</tr>
<tr>
<td>Group II Science and Mathematics</td>
<td>13</td>
</tr>
<tr>
<td>107 Trigonometry</td>
<td>2</td>
</tr>
<tr>
<td>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.)</td>
<td>8–10</td>
</tr>
<tr>
<td>101 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Group III Social Sciences</td>
<td>12</td>
</tr>
<tr>
<td>One history course</td>
<td>3</td>
</tr>
<tr>
<td>A two-course sequence in economics or sociology</td>
<td>6</td>
</tr>
<tr>
<td>Either of the following:</td>
<td>3</td>
</tr>
<tr>
<td>112 American Government or 202 State and Local Government</td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td>11–12</td>
</tr>
<tr>
<td>Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.</td>
<td></td>
</tr>
<tr>
<td>One course in philosophy or religion.</td>
<td></td>
</tr>
<tr>
<td>One course in art, music, or dramatic arts.</td>
<td></td>
</tr>
<tr>
<td>Group IV Education</td>
<td>22</td>
</tr>
<tr>
<td>302 Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>303 Principles of Teaching</td>
<td>3</td>
</tr>
<tr>
<td>340 Introduction to Measurement and Evaluation or 405 Basic Guidance Concepts and Processes</td>
<td>2</td>
</tr>
<tr>
<td>418 Seminar in Education</td>
<td>2</td>
</tr>
<tr>
<td>460 Practicum in Industrial Education</td>
<td>2</td>
</tr>
<tr>
<td>461 The Teaching of Industrial Education</td>
<td>2</td>
</tr>
<tr>
<td>492 Student Teaching</td>
<td>8</td>
</tr>
</tbody>
</table>

*May be recommended upon completion of the requirements given in the Michigan State Plan for Vocational Education, as adopted, 1973.
(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 coursework in the program of study.)

| Group VI Practical Arts                          | 50 |
| Basic Technical Courses                        | 12 |
| 102 Woodwork                                   | 3  |
| 108 Applied Energy Measurements                | 3  |
| 122 Technical Drawing or 128 Architectural Drawing I | 3  |
| 123 Metal Processes                             | 3  |
| Industrial Education Core                      | 18 |
| 121 Graphic Communication                      | 3  |
| 201 Construction Technology                    | 3  |
| 203 Manufacturing Technology                   | 3  |
| 213 Occupational Safety and Health             | 3  |
| 217 Structure of Industry                      | 3  |
| 218 Energy Systems                              | 3  |
| Professional Sequence                           | 6  |
| 250 Foundations of Industrial Education         | 3  |
| 350 Curriculum in Industrial Education          | 3  |

- Area of Concentration 14

In addition to the courses listed above each industrial education major will complete 14 hours in an area of concentration. Concentrations include construction, manufacturing, graphic communication and power. Selections are to be made from the following in consultation with the academic adviser.

| Construction                             | 14 |
| (Select three courses)                   |    |
| 206 Surveying                            | 3  |
| 229 Architectural Drawing II             | 3  |
| 400 Site Planning and Development        | 3  |
| 401 Construction Estimating and Bidding  | 2  |
| 402 Construction Materials               | 3  |

(Select two courses)

| Manufacturing                             | 14 |
| (Select three courses)                    |    |
| 200 Industrial Electricity                | 3  |
| 223 Descriptive Geometry                  | 3  |
| 305 Forest Products                       | 3  |
| 331 Industrial Computer Graphics          | 3  |
| 394 Cooperative Education in Industrial Technology | 3 |
| 494 Cooperative Education in Industrial Technology | 3 |

| Power                                     | 14 |
| (Electronics Option)                      |    |
| 200 Industrial Electricity                | 3  |
| 214 Solid State Electronics               | 3  |
| 314 Integrated Circuits                   | 3  |
| 315 Communication Circuits                | 2  |
| (Energy Systems Option)                   |    |
| 219 Technics of Energy Control            | 3  |
| 318 Energy Transfer Systems               | 2  |
| 319 Automotive Technology                 | 3  |

Group VII Physical Education and Health 4

Physical education activity courses 4

Note: Two semester hours of military science may be applied toward this requirement.

Electives 4–2

Total 124

Students completing the above curriculum will have satisfied all major and minor requirements for graduation.

An Industrial Education minor, available only on the elementary or special education curriculums, is described on page 80.

**INDUSTRIAL TECHNOLOGY CURRICULUM**

**Bachelor of Science Degree**

**Adviser Chairman, John Weeks**

Industrial Technology and Industrial Education Department

This curriculum prepares men and women for careers in technically 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 pursuing this program major has the option of specializing in construction technology, manufacturing technology or industrial technology within the Group VI requirements.

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 35. 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.

**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 422 Technical Writing .................. 3

*Group II Science and Mathematics .......... 30

101 General Psychology ........................ 3

105 College Algebra .......................... 3

107 Plane Trigonometry ....................... 2

131 General Chemistry I ......................... 5

PHY 221 Mechanics, Sound and Heat ........... 4

PHY 222 Electricity and Light .................. 4

CHM 241 Materials Science ..................... 3

Electives: Mathematics, Physics or Chemistry .. 6

Group III Social Sciences ..................... 12–14

One history course .......................... 3

Either of the following: ........................ 3

112 American Government or
202 State and Local Government

Either of the following: ......................... 6–8

201 Principles of Economics I, and
202 Principles of Economics II, or
200 The American Economy and an
approved two course sequence

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 Practical Arts ...................... 50

Basic Technical Courses ..................... 12

108 Applied Energy Measurements ............... 3

122 Technical Drawing or
128 Architectural Drawing I ............... 3

123 Metal Processes .......................... 3

202 Plastics .................................. 3

Industrial Technology Core .................... 9

201 Construction Technology or
203 Manufacturing Technology .......... 3

213 Occupational Safety and Health ........... 3

217 Structure of Industry ..................... 3

*Choose one of the following specializations:
Construction Technology .................... 29

Required:
206 Surveying .................................. 3

229 Architectural Drawing II .................. 3

400 Site Planning and Development ............ 3

401 Construction Estimating and Bidding ...... 2

402 Construction Materials ................... 3

Electives:
200 Industrial Electricity ........................ 3

223 Descriptive Geometry ..................... 3

305 Forest Products ............................ 3

331 Industrial Computer Graphics .............. 3

394 Cooperative Education
in Industrial Technology ................... 3

494 Cooperative Education
in Industrial Technology ................... 3

May elect a maximum of six hours from the following:

MGT 302 Business Communications ............ 3

MGT 382 Introduction to Management .......... 3

SOC 307 Industrial Sociology .................. 3

PSY 351 Industrial Psychology ................. 3

GEO 301 Cartography .......................... 3

GEO 315 Land Use Planning .................... 3

GEO 327 Soil Science ........................... 2

ECO 322 American Labor Unions ............... 3

BIO 224 Principles of Conservation ............ 4

Manufacturing Technology .................... 29

Required:
200 Industrial Electricity ..................... 3

215 Machine Tool Metalworking ............... 3

223 Descriptive Geometry ..................... 3

318 Energy Transfer Systems ................... 2

331 Industrial Computer Graphics .............. 3

420 Materials Handling or
424 Industrial Plant Facilities
and Planning ................................... 3

Electives:
121 Graphic Communication .................... 3

205 Photo-Technology .......................... 2

207 Photographic Reproduction ................. 2

214 Solid State Electronics ..................... 3

218 Energy Systems ............................ 3

219 Technics of Energy Control ................. 3

251 Materials Analysis and Testing ............. 3

306 Plastic Processing .......................... 3

310 Graphic Arts Workshop ..................... 3

314 Integrated Circuits .......................... 3

316 Advanced Machining Processes ............. 3

324 Industrial Drawing ......................... 3

394 Cooperative Education
in Industrial Technology ................... 3

494 Cooperative Education
in Industrial Technology ................... 3

May elect a maximum of six hours from the following:

MGT 302 Business Communications ............ 3

MGT 382 Introduction to Management .......... 3

SOC 307 Industrial Sociology .................. 3

PSY 351 Industrial Psychology ................. 3

ECO 322 American Labor Unions ............... 3

BIO 224 Principles of Conservation ............ 4

Industrial Technology ....................... 29

Courses for this specialization are to be selected from departmental offerings in consultation with the academic adviser. A maximum of six hours from the 29 hours may be taken as related non-departmental courses.

Group VII Physical Education and Health ...... 4

Physical education activity courses ............ 4

Note: Two semester hours of military science may be applied toward this requirement.

*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.
Free electives ........................................ 9–5
Total .......................................................... 124

Completion of the above requirements fulfills a major in industrial technology and a minor in science.

INDUSTRIAL TECHNOLOGY MINOR
(Non-Teaching)
The 24-hour minor in industrial technology is designed to serve non-teaching majors in industrial or business 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.

Approval for use of the industrial technology minor to satisfy graduation requirements must be obtained from the Department of Industrial Technology and Industrial Education. Elective courses in this minor will be selected to relate to the student’s major subject area. Academic advising to determine elective course choices will be provided by this department.

Semester Hours

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>108 Applied Energy Measurements</td>
<td>3</td>
</tr>
<tr>
<td>122 Technical Drawing</td>
<td>3</td>
</tr>
<tr>
<td>123 Metal Processes</td>
<td>3</td>
</tr>
<tr>
<td>202 Plastics</td>
<td>3</td>
</tr>
<tr>
<td>217 Structure of Industry</td>
<td>3</td>
</tr>
<tr>
<td>*Electives</td>
<td>9</td>
</tr>
<tr>
<td>Total Semester Hours</td>
<td>24</td>
</tr>
</tbody>
</table>

INSURANCE
Administered by the 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.

Semester hours

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>INS 351 Introduction to Risk &amp; Insurance</td>
<td>3</td>
</tr>
<tr>
<td>INS 457 Property and Liability Insurance</td>
<td>3</td>
</tr>
<tr>
<td>INS 458 Life and Health Insurance</td>
<td>3</td>
</tr>
<tr>
<td>INS 459 Seminar in Risk Management</td>
<td>3</td>
</tr>
<tr>
<td>*Elective choices to be made through consultations with the adviser chairman of the industrial technology curriculum.</td>
<td></td>
</tr>
<tr>
<td>Total specialized hours required</td>
<td>24</td>
</tr>
</tbody>
</table>

CURRICULUM FOR INTERIOR DESIGN AND HOUSING
Bachelor of Science Degree
Adviser Chairperson, Betty Lou Barber
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 35. This same page indicates how students may choose an alternate way of meeting 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

<table>
<thead>
<tr>
<th>Group</th>
<th>Language</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>One course in English composition or, if eligible, a foreign language course.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>One course in fundamentals of speech.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>One elective course in English language, in a foreign language, in speech or in library science (Group I).</td>
<td></td>
</tr>
<tr>
<td>Group II Science and Mathematics</td>
<td>10–12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>One laboratory science course.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A second laboratory science course or a course in mathematics.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>One elective course in Group II.</td>
<td></td>
</tr>
<tr>
<td>Group III Social Sciences</td>
<td>9–12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>One course in American government selected from:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>112 American Government or</td>
<td></td>
</tr>
<tr>
<td></td>
<td>202 State and Local Government</td>
<td>3</td>
</tr>
</tbody>
</table>
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, or two intermediate foreign language courses, or two advanced foreign language literature courses.

One course in philosophy or religion.

105 Integrated Arts 3

Group VI Practical Arts (Interior Design Major) 50

Foundation courses 4
200 The Family as Environment 2
400 The Family in Environment 2

Application courses 8–12
Select at least one (1) course from each area outside of your specialization
Clothing and Textiles
114 Clothing for Consumers 3
118 Clothing Principles 2
235 Textiles for Consumers (Recommended Course) 3
Consumer Affairs and Education
112 Family Resources 2
271 Household Equipment 3
285 Home Management 3
Family Life and Child Development
109 Interpersonal Relations in the Family 2
207 Living with Young Children 3
209 Marriage and Interpersonal Competence 3
Foods and Nutrition
102 Family Food Management 2
107 Food for Man 2
116 Foods for Consumers 3
201 Nutrition for the Family 3

Specialization Courses 38–34
*208 Basic Interior Design 3
*269 Ecological View of Housing 3
*275 Presentation Techniques 3
*309 Residential Design 3
*350 Historic Near Environment 2
*351 Historic Near Environment Laboratory 1
*352 Contemporary Near Environment 2
*353 Contemporary Near Environment Laboratory 1
*445 Advanced Residential Design 3
*447 Contract Design 3
*IED 128 Architectural Drawing I 3
*IED 229 Architectural Drawing II 3
210 Display Techniques 2
222 Home Furnishing Techniques 2
390 Demonstration Methods 3
414 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

Group VII Physical Education and Health 4
Physical education activity courses 4

Note: Two semester hours of military science may apply toward this requirement.
Free electives 30–25
Total 124

Utilizing some free electives and any appropriate basic studies courses, students on this program must complete a minor to meet graduation requirements. A minor in art or in business is recommended.

JOURNALISM

The Minor in journalism is offered by the Department of English Language and Literature. See Professor Curtis K. Stadtfeld, 613M Pray-Harold, or Dr. Milton P. Foster, 612A Pray-Harold, for advice.

Minor in Journalism (21–24 semester hours)
(A Non-Teaching minor)

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required courses:</td>
</tr>
<tr>
<td>215 Journalism</td>
</tr>
<tr>
<td>216 History of American Journalism</td>
</tr>
<tr>
<td>306 Feature, Interpretive and Editorial Writing</td>
</tr>
<tr>
<td>307 Newspaper and Magazine Editing</td>
</tr>
<tr>
<td>310 Contemporary Problems in Journalism</td>
</tr>
<tr>
<td>Electives chosen from the following:</td>
</tr>
<tr>
<td>325 Expository Writing</td>
</tr>
<tr>
<td>335 Imaginative Writing</td>
</tr>
<tr>
<td>442 Writer’s Workshop: Internship in Journalism</td>
</tr>
<tr>
<td>140 Broadcasting and Film (Speech and Drama)</td>
</tr>
<tr>
<td>331 Fundamentals of Radio Production and Direction (Speech and Drama)</td>
</tr>
<tr>
<td>332 Fundamentals of Television Production and Direction (Speech and Drama)</td>
</tr>
<tr>
<td>343 Broadcast News (Speech and Drama)</td>
</tr>
<tr>
<td>344 Broadcast Continuity Writing (Speech and Drama)</td>
</tr>
<tr>
<td>121 Graphic Communications (Industrial Education)</td>
</tr>
<tr>
<td>369 Advertising (Marketing)</td>
</tr>
<tr>
<td>(Prerequisites will be waived in most cases for upper level broadcast courses.)</td>
</tr>
</tbody>
</table>

LABOR STUDIES

(Non-Teaching)

Director: Donald W. Pearson

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)

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required courses:</td>
</tr>
<tr>
<td>ECO 310 Economic Statistics</td>
</tr>
<tr>
<td>ACC 240 Principles of Accounting</td>
</tr>
<tr>
<td>ECO 320 Labor Economics</td>
</tr>
</tbody>
</table>
Labor Use Analysis

88/Undergraduate Catalog

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 310 Economic Statistics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 320 Labor Economics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 321 Black Workers and Labor Market</td>
<td>3</td>
</tr>
<tr>
<td>ECO 322 American Labor Unions</td>
<td>3</td>
</tr>
<tr>
<td>ECO 323 Labor and Government</td>
<td>3</td>
</tr>
<tr>
<td>ECO 325 Collective Bargaining</td>
<td>3</td>
</tr>
<tr>
<td>ECO 326 Economics of Women</td>
<td>3</td>
</tr>
<tr>
<td>ECO 420 Comparative Labor Unionism</td>
<td>3</td>
</tr>
<tr>
<td>ECO 422 Union Leadership</td>
<td>3</td>
</tr>
<tr>
<td>ECO 424 Seminar in Labor Issues</td>
<td>3</td>
</tr>
<tr>
<td>ECO 524 White Collar and Public Employee Unionism</td>
<td>2</td>
</tr>
<tr>
<td>ACC 240 Principles of Accounting</td>
<td>3</td>
</tr>
<tr>
<td>SOC 307 Industrial Sociology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 351 Industrial Psychology</td>
<td>3</td>
</tr>
<tr>
<td>HIS 360 United States Labor History</td>
<td>3</td>
</tr>
<tr>
<td>MGT 384 Personnel Administration</td>
<td>3</td>
</tr>
<tr>
<td>ADS 403 Labor Law</td>
<td>3</td>
</tr>
<tr>
<td>PLS 335 Labor in American Politics</td>
<td>3</td>
</tr>
</tbody>
</table>

- LAND USE ANALYSIS

(Non-Teaching)

Administered by the Geography and Geology Department

The land use analysis program is an interdisciplinary program with a 36-hour major or a 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 Major (36 semester hours)

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 224 Principles of Conservation</td>
<td>4</td>
</tr>
<tr>
<td>ECO 338 Land Economics</td>
<td>3</td>
</tr>
<tr>
<td>GEO 315 Land Use Planning</td>
<td>3</td>
</tr>
<tr>
<td>RES 210 Real Estate Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td>GEO 495 Environmental Impact Assessment</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Techniques Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 300 Location and Site Analysis</td>
<td>9</td>
</tr>
<tr>
<td>Computer Science Course from MTH 137, ORI 215, or IED 331</td>
<td></td>
</tr>
</tbody>
</table>

Electives ................................................... 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
- PED 270 Organization and Administration of Recreation
- SOC 306 The Urban Community
- PLS 330 Urban Politics
- ECO 332 Urban Economics
- GEO 332 Urban Geography
- 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
- JED 400 Site Planning and Development
- BIO 410 Limnology
- CHM 415 Environmental Chemistry
- BIO 420 Ecology
- GEO 424 Climatology
- GEO 448 Ground Water

Suggested Basic Studies Courses (not a part of the major):

- BIO 105 Biological Science
- 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

Land Use Analysis Minor (24 semester hours)

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 315 Land Use Planning</td>
<td>3</td>
</tr>
<tr>
<td>GEO 495 Environmental Impact Assessment</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Techniques Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 300 Location and Site Analysis</td>
<td>6</td>
</tr>
<tr>
<td>Computer Science Course from MTH 137, ORI 215, or IED 331</td>
<td></td>
</tr>
</tbody>
</table>

Electives: .................................................. 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 361 Geography of Population
- JED 400 Site Planning and Development
- GEO 438 Industrial Location
- GEO 411 Transportation Geography
- ECO 455 Economic Efficiency in the Public Sector
PRE-LAW CURRICULUM
Adviser Chairman, David Hortin
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 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 08540, 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 34 or the Bachelor of Arts Curriculum on page 34.

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.

CURRICULUM FOR LIBRARY SCIENCE
Bachelor of Science or Bachelor of Arts Degree

*Elementary or Secondary Provisional Certificate
Adviser Chairman, Henry J. Corbacho
Educational Media; Curriculum and Instruction 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 35. 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.

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 406 Storytelling ........................................... 2
**EDM 402 General Reference ........................................ 3
Electives ..................................................... 6

Group II Science and Mathematics .......................... 11–12
(No more than two courses in one department)

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

101, 102 History of Western Civilization .................. 6
Either of the following: ........................................ 3
112 American Government or 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.

*If Elementary Provisional Certificate is desired, consult with the dean of Academic Records and Teacher Certification regarding special requirements. In Group II, election of 101 Functional Mathematics is recommended.
**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.
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
EDP 302 Educational Psychology .................... 3
CUR 303 Principles of Teaching ...................... 3
CUR 310 Teaching of Reading or
311 Teaching Secondary Reading .................... 3
** EDM 344 Audio-Visual Methods .................. 2
CUR 418 Seminar in Education ....................... 2
EDU 405 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
Group VII Physical Education and Health ......... 4
Physical education activity courses ................ 4
Note: Two semester hours of military science
may be applied toward this requirement.

Free electives ............................................. 31-26
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

Minor (20 semester hours)

Required courses:  Semester Hours
207 Introduction to Children's Literature ........ 3
314 Literature for Young Adults .................. 3
320 The Media Center in the School .............. 3
402 General Reference ................................ 3
404 Selection and Use of Materials ............... 3
405 Organization of Materials ..................... 3
Elect one of the following:
406 Storytelling ........................................ 2
409 History of Books and Libraries ............... 2
430 Special Problems of the School Library ..... 2
*496 Student Teaching (Library Practice) ...... 4

For physical science majors electing a library science mi-
nor, 491 History of Chemistry will be substituted for 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.

MANAGEMENT

The management major and minor are administered by
The Management Department, with career concentrations
possible in the following areas:

Administrative Communication

Areas of concern include the development of understand-
ing and skills in the appropriate use of communication me-
dia and channels to bring about mutual understanding, atti-
tude and behavior modification, and effective coordination
in business, industry and other types of organizations. This
concentration prepares students for responsibilities in ad-
ministration, supervision and general management.

Executive Development Program

As a service to individuals who are employed and wish to
complete a formal education program, the Management De-
partment offers a complete range of courses in the evening.
These are taught by regular faculty members and permit
the completion of the Bachelor of Business Administration and
Master of Business Administration degrees with evening
college only. For further information, call the Management
Department (313) 487-3240, or consult with the department
head in 504 Pray-Harrold.

General Management

For those students who do not wish to specialize in a
particular academic area, the general management concen-
tration provides a broad background in business administra-
tion, which will equip them for a variety of positions in busi-
ness and industry. In addition to the basic courses in busi-
ness administration required of all business majors, each
student selects representative courses in accounting, fi-
nance, management, marketing, and operations research and
information systems which will contribute to his or her edu-
cational 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 develop-
ment; employee selection, training and performance review;
wage and salary administration; and management-labor rela-
tions.

Public and Non-Public Organizations

Emphasis is placed on the necessity of practicing man-
agement 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 prob-
lems of small business man who must deploy efforts in gen-
eral and broad areas in order to succeed. Students are given
a broad management background and the specific tech-
niques required to develop and maintain a small entre-
preneurship. 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 Busi-
ness Administration degree).

Required .................................................. 9
• 384 Personnel Administration .................... 3
386 Organizational Theory
and Development ..................................... 3
460 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 adviser and the department head.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>399 Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>402 Business Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>482 Wage and Salary Administration</td>
<td>3</td>
</tr>
<tr>
<td>484 Management—Union Relations</td>
<td>3</td>
</tr>
<tr>
<td>485 Training Function in Organizations</td>
<td>3</td>
</tr>
<tr>
<td>486 Strategies for Organizational Development</td>
<td>3</td>
</tr>
<tr>
<td>487 Current Issues in Personnel</td>
<td>3</td>
</tr>
<tr>
<td>489 Comparative Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>497, 498, 499 Independent Study</td>
<td>1, 2, 3</td>
</tr>
</tbody>
</table>

Management Minor (Non-teaching)

Semester Hours

(For non-business majors) 21

Required

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>240 Principles of Accounting</td>
<td>3</td>
</tr>
<tr>
<td>300 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>382 Introduction to Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives 12

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>215 Computers in Business</td>
<td>3</td>
</tr>
<tr>
<td>302 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>384 Personnel Administration</td>
<td>3</td>
</tr>
<tr>
<td>386 Organization Theory and Development</td>
<td>3</td>
</tr>
<tr>
<td>390 Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>394 Introduction to Production Management</td>
<td>3</td>
</tr>
<tr>
<td>399 Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>402 Business Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>480 Management Responsibility in Society</td>
<td>3</td>
</tr>
<tr>
<td>428 Linear Programming</td>
<td>3</td>
</tr>
<tr>
<td>482 Wage and Salary Administration</td>
<td>3</td>
</tr>
<tr>
<td>484 Management-Union Relations</td>
<td>3</td>
</tr>
<tr>
<td>485 Training Function in Organizations</td>
<td>3</td>
</tr>
<tr>
<td>486 Strategies for Organizational Development</td>
<td>3</td>
</tr>
<tr>
<td>487 Current Issues in Personnel</td>
<td>3</td>
</tr>
<tr>
<td>489 Comparative Management Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

MARKETING

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:

Semester Hours

Marketing Area of Concentration 24

Required 12

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>365 Buyer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>368 Marketing Strategy</td>
<td>3</td>
</tr>
<tr>
<td>470 Marketing Research</td>
<td>3</td>
</tr>
<tr>
<td>475 Marketing Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives 12

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Students majoring in marketing are encouraged to complete one of the following areas of specialization.)</td>
<td></td>
</tr>
</tbody>
</table>

Advertising and Sales Promotion. The advertising concentration prepares students for positions leading to careers as an advertising manager. Areas of interest include the communication process, selection of the advertising appeal, media choice and the advertising campaign, among others.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 325 Expository Writing</td>
<td>3</td>
</tr>
<tr>
<td>215 Journalism</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing Research</td>
<td>3</td>
</tr>
<tr>
<td>ECO 480 International Economics</td>
<td>3</td>
</tr>
<tr>
<td>MGT 384 Personnel Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 384 Personnel Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing Research</td>
<td>3</td>
</tr>
<tr>
<td>Marketing/101</td>
<td>3</td>
</tr>
</tbody>
</table>

Sales and Sales Management. The Sales and Sales Management concentration prepares students for such careers as sales manager, district sales manager and corporate sales manager. Areas stressed include techniques of selling, sales psychology, sales training, sales forecasting, purchasing procedures and value analysis.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing Research</td>
<td>3</td>
</tr>
<tr>
<td>MGT 384 Personnel Administration</td>
<td>3</td>
</tr>
</tbody>
</table>

Minor in Marketing (Non-teaching)

Students who are not majors in the College of Business may elect to minor in marketing.

Semester Hours

Marketing Minor (for non-business majors) 21

Required 9

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>240 Principles of Accounting</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective 3

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>369 Advertising</td>
<td>3</td>
</tr>
<tr>
<td>SPH 446 Broadcasting in Society</td>
<td>3</td>
</tr>
<tr>
<td>FA 301 Graphic Design</td>
<td>3</td>
</tr>
<tr>
<td>474 Promotional Strategy</td>
<td>3</td>
</tr>
</tbody>
</table>
360 Principles of Marketing .......................... 3
382 Introduction to Management ................... 3
Marketing Electives ................................. 6
Business Electives (approved by adviser) ........... 6
Marketing Electives for Minors:
- 261 Contemporary Selling
- 364 Distribution Systems
- 365 Buyer Behavior
- 368 Marketing Strategy
- 369 Advertising
- 374 Industrial Marketing and Purchasing

**MATHEMATICS**

**Major (30 semester hours)**

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>121 Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>122 Elementary Linear Algebra</td>
<td>2</td>
</tr>
<tr>
<td>223 Multivariable Calculus</td>
<td>4</td>
</tr>
<tr>
<td>370 Probability and Statistics I</td>
<td>4</td>
</tr>
</tbody>
</table>

*Electives in mathematics from the following list ..................... 12

| 319, 325, 341, 342, 411, 416, 418, 420, 425, 436, 471 |

*Note: Majors preparing to teach high school or junior high school mathematics must take at least one of 341 or 342; must take 137 Introduction to Computer Programming which will count as a mathematics elective, and may take 400 History of Mathematics which will count as a mathematics elective. Also note that mathematics teaching majors must take 306 Teaching of High School Mathematics in addition to the requirements for the major.

*Note: Non-teaching majors may take only one of 341 or 342 and may not count 400 as a mathematics elective. These majors are required to take 137 Introduction to Computer Programming or demonstrate equivalent knowledge of the course. Course 137 does not count as part of the 30 hours for the 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 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 325, 418, 436, 471
- Economics 325, 418
- Biology 418, 471
- Physics 325, 416, 418, 425, 436
- Chemistry 325, 418, 425, 436
- Psychology 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 who have taken 120 Calculus with Analytic Geometry I may enroll in 121 Calculus II. The course 223 Multivariable Calculus may be taken only by those who have taken 121 Calculus II in Fall 1977 or later.

Students who have taken 220 or 221 Calculus with Analytic Geometry III, IV may satisfy their mathematics major or minor by taking the requirements as described in the Eastern Michigan University Catalog for the year in which they first enrolled in college.

Students seeking further information about this major should consult with Alan L. Macdonald of the Department of Mathematics.

Students who desire acceleration or advanced standing should consult with Bob L. Goosey of the Department of Mathematics.

Please note the General Requirements of the Mathematics Department listed on page 176.

**Minor (20 semester hours)**

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>0–3</td>
</tr>
<tr>
<td>7–4</td>
</tr>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

*Note: Minors preparing to teach mathematics must take 341 or 342, and may take 400 History of Mathematics as an elective in mathematics. Non-teaching minors may not use 400 as an elective in mathematics.

Students seeking further information about this minor should consult with Alan L. Macdonald of the Department of Mathematics.

Please note the General Requirements of the Mathematics Department listed on page 176.

**Major In Mathematics for the Elementary Teaching Certificate (30 semester hours)**

*This major is administered by the Department of Mathematics.*

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
</tr>
<tr>
<td>13</td>
</tr>
</tbody>
</table>

*Note: Mathematics 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 of the Department of Mathematics.*

All of the above courses are listed in the Mathematics Department course offerings.

Please note the General Requirements of the Mathematics Department listed on page 176.

**Minor in Mathematics for the Elementary Teaching Certificate (20 semester hours)**

*This minor is administered by the Department of Mathematics.*

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
</tr>
<tr>
<td>8</td>
</tr>
</tbody>
</table>
Note: 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 of the Department of Mathematics.

All of the above courses are listed in the Mathematics Department course offerings.

Please note the General Requirements of the Mathematics Department listed on page 176.

MEDICAL TECHNOLOGY

Bachelor of Science Degree

This curriculum consists of a three-year program at Eastern Michigan University followed by a twelve-month internship at an affiliated school of medical technology. Junior or community college students may complete one year in their college and take the second and third year of work at the University.

A major is allowed in medical technology with 30 semester hours of credit for the year of internship. In addition, a 20 semester hour minor in chemistry is inherent in this program, thus automatically fulfilling the major and minor requirements for graduation.

At least 30 semester hours of the academic program must be completed at Eastern Michigan University.

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.

Students entering the program will be classified initially as Medical Technology Intention. Application for full admission to the program must be made after completion of 40 semester hours including Chemistry 131, 132 and 270–271 or 281; Biology 105, 222, and 270 or 330–331; Mathematics 105 and higher; and Physics 221. In satisfying the above requirements, transfer students must have at least one biology course and one chemistry course at EMU. An overall GPA at EMU of at least 2.50 with no grade below “C” in any science course is required. The application form can be obtained from any medical technology adviser, the Medical Technology Office or the Academic Advising Office. The applications must be in the Medical Technology Office no later than February 15 of each academic year. Applications received after that date will not be considered.

Moreover, each student applying to the program is required to take the Allied Health Professions Admission Test. The AHPAT is given in January on the EMU campus. Application forms for the exam may be picked up in the Medical Technology Office.

After acceptance into the program, each student will be advised concerning the process for internship application and will begin making application for an internship position. Acceptance into the program does not guarantee placement in any hospital. Only students whose applications have been approved can use the 30 hour internship as a major toward the Bachelor of Science degree.

Upon completion of the curriculum and successful achievement of the registry examination, the candidate will receive the Certificate in Medical Technology from the American Society of Clinical Pathologists.

Medical Technology schools affiliated with the University:

- Flint Osteopathic Hospital—Flint
- McLaren General Hospital—Flint
- Oakwood Hospital—Dearborn
- Providence Hospital—Southfield
- Providence Hospital—Flint
- Port Huron Hospital—Port Huron
- Wayne County General Hospital—Westland
- W. A. Foote Hospital—Jackson

**MEDICAL TECHNOLOGY CURRICULUM**

**Director: Lois Beerbaum**

Room 220 King Hall

**First Year**

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>First Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>(15–19)</td>
<td>One course in English Composition or if eligible a foreign language 3–5</td>
</tr>
<tr>
<td></td>
<td>105 Algebra or 120 Calculus 3–4</td>
</tr>
<tr>
<td></td>
<td>105 or 106 Biological Science 2–4</td>
</tr>
<tr>
<td></td>
<td>131 General Chemistry I 5</td>
</tr>
<tr>
<td></td>
<td>Physical education activity or military science 1</td>
</tr>
<tr>
<td>(13–14)</td>
<td>Second Semester</td>
</tr>
<tr>
<td></td>
<td>One course in fundamentals of speech 2–3</td>
</tr>
<tr>
<td></td>
<td>112 American Government or 202 State and Local Government 3</td>
</tr>
<tr>
<td></td>
<td>222 General Zoology 3</td>
</tr>
<tr>
<td></td>
<td>132 General Chemistry II 4</td>
</tr>
<tr>
<td></td>
<td>Physical education activity 1</td>
</tr>
</tbody>
</table>

**Second Year**

<table>
<thead>
<tr>
<th>(16)</th>
<th>First Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PHY 221 Mechanics, Sound &amp; Heat 4</td>
</tr>
<tr>
<td></td>
<td>CHM 271 Organic Chemistry Laboratory 1</td>
</tr>
<tr>
<td></td>
<td>CHM 270 Organic Chemistry 4</td>
</tr>
<tr>
<td></td>
<td>ZOO 270 Human Physiology or BIO 320 General Physiology 3</td>
</tr>
<tr>
<td></td>
<td>Literature or Foreign Language Literature 3</td>
</tr>
<tr>
<td></td>
<td>Physical education activity 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(15)</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PHY 222 Electricity and Light 4</td>
</tr>
<tr>
<td></td>
<td>CHM 281 Quantitative Analysis 4</td>
</tr>
<tr>
<td></td>
<td>History Course 3</td>
</tr>
<tr>
<td></td>
<td>Literature or Foreign Language Literature 3</td>
</tr>
<tr>
<td></td>
<td>Physical education activity 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(9–10)</th>
<th>Third Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BOT 330 General Microbiology Laboratory 2</td>
</tr>
<tr>
<td></td>
<td>BOT 331 General Microbiology 3</td>
</tr>
<tr>
<td></td>
<td>Fine Arts requirement 2–3</td>
</tr>
<tr>
<td></td>
<td>Group I elective 3</td>
</tr>
<tr>
<td></td>
<td>MDT 101 Introduction to Medical Technology/ Nuclear Medicine Technology 1</td>
</tr>
</tbody>
</table>

**Third Year**

<table>
<thead>
<tr>
<th>(14)</th>
<th>First Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>*Introduction to Electronics (being developed) 3</td>
</tr>
<tr>
<td></td>
<td>Philosophy or Religion 3</td>
</tr>
<tr>
<td></td>
<td>BIO 333 Principles of Immunology 2</td>
</tr>
<tr>
<td></td>
<td>CHM 351 Introductory Biochemistry 3</td>
</tr>
<tr>
<td></td>
<td>CHM 352 Basic Biochemical Analysis 1</td>
</tr>
<tr>
<td></td>
<td>BIO 495 Practicum in Hematology 2</td>
</tr>
</tbody>
</table>

*Anticipated course to be offered beginning Winter '79.*
**Second Semester**  
Second History Course 3  
BIO 334 Immunohematology/Urinalysis 2  
BOT 332 Clinical Microbiology 3  
BOT 345 Medical Mycology 4  
CHM 455 Clinical Chemistry 3  
ZOO 360 Parasitology 3  

**Fourth Year**  
Internship at an affiliated hospital 30  

**PRE-MEDICAL AND PRE-OSTEOPATHIC MEDICAL CURRICULUM**

Adviser Chairman, Edith M. Hurst  
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 osteopathy 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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>121 English Composition</td>
<td>3</td>
</tr>
<tr>
<td>Electives in English language or literature</td>
<td>3</td>
</tr>
<tr>
<td>106 Orientation to Biology</td>
<td>2</td>
</tr>
<tr>
<td>222 General Zoology</td>
<td>4</td>
</tr>
<tr>
<td>301 Genetics and/or 323 Animal Embryology</td>
<td>3-6</td>
</tr>
<tr>
<td>131, 132 General Chemistry</td>
<td>9</td>
</tr>
<tr>
<td>371, 372, 373 Organic Chemistry</td>
<td>8</td>
</tr>
<tr>
<td>221 Mechanics, Sound and Heat and</td>
<td>8</td>
</tr>
<tr>
<td>222 Electricity and Light</td>
<td>8</td>
</tr>
<tr>
<td>Sociology and Psychology</td>
<td>6</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>121 English Composition</td>
<td>3</td>
</tr>
<tr>
<td>131 General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>*Mathematics</td>
<td>2-4</td>
</tr>
<tr>
<td>106 Orientation to Biology</td>
<td>2</td>
</tr>
<tr>
<td>Physical education activity or military science</td>
<td>1</td>
</tr>
</tbody>
</table>

**Second Semester**  
132 General Chemistry II 4  
*Mathematics 4-4  
222 General Zoology 4  
Physical education activity or military science 1  
Elective 3

**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.  
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 seven semester hours may be awarded toward graduation for completion of the Basic Program. Two

*Students with strong high school preparation and at least "B" quality mathematics, including two years of algebra, and trigonometry, may take 120 Calculus I during the first semester.

Students with 1½–2 years of less than high quality algebra take 105 Algebra.

Students with only one year of algebra take 104, followed by 105 Algebra.

Students without trigonometry take 107 Trigonometry.
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.
5. Be a veteran with over four months active duty in any of the U.S. Armed Forces.

Prescribed Courses

First Semester 300 Advanced Military Leadership & Management I. Three sem hours.
Second Semester—301 Fundamental 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.

Credit Toward Graduation

The twelve semester hours credit earned in the Advanced Program may be used as free elective credit. Requirements in certain curriculums 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 or 2 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.

MINOR IN MILITARY SCIENCE

(Non-Teaching)

Prescribed Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 Fundamentals of Leadership and Management I</td>
<td>2</td>
</tr>
<tr>
<td>101 Fundamentals of Leadership and Management II</td>
<td>1</td>
</tr>
<tr>
<td>200 Applied Leadership and Management I</td>
<td>2</td>
</tr>
<tr>
<td>201 Applied Leadership and Management II</td>
<td>2</td>
</tr>
<tr>
<td>300 Advanced Military Leadership and Management I</td>
<td>3</td>
</tr>
<tr>
<td>400 Fundamentals and Dynamics of the Military Team I</td>
<td>3</td>
</tr>
<tr>
<td>401 Advanced Military Leadership and Management II</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>1</td>
</tr>
</tbody>
</table>

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.

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.

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.

PRE-MORTUARY SCIENCE CURRICULUM

Adviser Chairman, Edward L. Compere, Jr.
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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>121 English Composition</td>
<td>3</td>
</tr>
<tr>
<td>English writing elective (ENG 215, 225 or 120)</td>
<td>3</td>
</tr>
<tr>
<td>105 Biology and the Human Species</td>
<td>4</td>
</tr>
</tbody>
</table>

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 parenthesis.

Public Speaking (SPH 121 or 124, 225, 226, 227)
Behavioral Sciences (PSY 225, 323; SOC 105, 311)
First Aid (PED 210)
Business (ADS 100, 303, 308; ACC 240; ECO 200 or 201; MGT 382; MKT 360)
Counseling (C&G 405, with permission)

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 see 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, Max E. Plank

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 35. 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.

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 dean of Academic Records and Teacher Certification regarding special requirements.
Curriculum for Teachers of Vocal Music*

Bachelor of Music Education Degree

Elementary or Secondary Provisional Certificate

Adviser Chairman, Max E. Plank

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 35. 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
101 General Psychology .......................... 3
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:
112 American Government or
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 in Group V music classes below).

Group IV Education ................................. 22
302 Educational Psychology ...................... 3
303 Principles of Teaching ........................ 3
332 Instrumental Music in Public Schools .... 4
333 Orchestral Methods or
334 Band Methods ................................. 1
418 Seminar in Education ........................ 2
495 Student Teaching .............................. 4
496 Student Teaching .............................. 4

Group V Fine Arts ................................. 69
Basic Courses .................................... 33
101, 102 Music Theory-Literature I, II ....... 8
201, 202 Music Theory-Literature III, IV ... 8
232 Voice Class .................................... 1
301, 302 History of Music ......................... 6
413 Orchestration .................................. 2
414 Band Arranging .............................. 6
Six of the following courses ........................ 6

Required:
211 Basic Brass (trumpet, trombone)
241 Basic Percussion
261 Basic Strings (violin)
281 Basic Woodwind (clarinet)
Elect additional from:
212 Brass Class (horn, euphonium, tuba)
262 String Class (viola)
263 String Class (cello, bass)
282 Woodwind Class (flute, saxophone)
283 Woodwind Class (oboe, bassoon)

Music Performance ............................. 32
Applied Music 251, 252, 253, 254 Functional Piano (if secondary instrument) 4
100-300 Applied Music (principal instrument) 16
Conducting 326 Conducting 2
327 Instrumental Conducting 2
Ensembles ............................... 8

Electives (Music) ................................. 4

Group VII Physical Education and Health .... 4
Physical education activity courses 4

Note: Two semester hours of military science or two semesters of Marching Band may be applied toward this requirement.

Total .................................. 131-136

Students completing the above curriculum will have satisfied all major and minor requirements for graduation.

*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 dean of Academic Records and Teacher Certification regarding special requirements.
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).

Group IV Education .................................. 22
302 Educational Psychology .......................... 3
303 Principles of Teaching ............................ 3
330 Music Education in the Elementary School ........................................ 3
331 Music Education in the Secondary School ........................................ 3
418 Seminar in Education .............................. 2
405, 496 Student Teaching ................................ 8

Group V Fine Arts .................................... 64
Basic Courses ........................................ 26
101, 102 Music Theory-Literature I, II ........... 8
201, 202 Music Theory-Literature III, IV ......... 8
301, 302 History of Music ............................ 6
413 Orchestration .................................... 2
Two of the following courses ......................... 2
211 Basic Brass Class ................................ 2
241 Basic Percussion Class .......................... 2
261 Basic String Class ............................... 2
281 Basic Woodwind Class ........................... 2

Music Performance .................................. 34
Applied Music ........................................ 16
251-4, B11-12 Applied Music, if keyboard is secondary instrument ....................... 6
A01-A12 Applied Music (voice), if secondary instrument ............................... 2

Conducting ........................................... 2
326 Conducting ....................................... 2
328 Choral Conducting ............................... 2
Ensembles ............................................ 8

Electives (Music) .................................... 4

Group VII Physical Education and Health ....... 4
Physical education activity courses ............... 4

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

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 35. 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.

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 science (Group I).

Group II Science and Mathematics ................ 10–11

(Note 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:
112 American Government or 202 State and Local Government ...................... 3

Two courses in history.

Humanities .......................................... 15

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.

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 ....... 4

Physical education activity courses ................ 4

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.

*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.
BACHELOR OF MUSIC THERAPY DEGREE

Without Teacher Certification

(For degree with certification see discussion at end of this curriculum.)

Adviser, Mary Phipps

At this time the question of available financial support makes implementation of the Bachelor of Music Therapy Degree uncertain for 1978-79. Address any inquiries to Dr. James House, Head of The Music Department, for current information on the program's status.

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 35. 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**

<table>
<thead>
<tr>
<th>Group I Language</th>
<th>8–9</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course in English composition or, if eligible, a foreign language course.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group II Science and Mathematics</th>
<th>17–18</th>
</tr>
</thead>
<tbody>
<tr>
<td>105 Biology and the Human Species</td>
<td>4</td>
</tr>
<tr>
<td>270 Human Physiology</td>
<td>3</td>
</tr>
<tr>
<td>101 or 102 Psychology</td>
<td>3–4</td>
</tr>
<tr>
<td>360 Abnormal Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Four credit hours from:</th>
</tr>
</thead>
<tbody>
<tr>
<td>306 Social Psychology</td>
</tr>
<tr>
<td>321 Child Psychology</td>
</tr>
<tr>
<td>322 Psychology of Adolescence</td>
</tr>
<tr>
<td>352 Psychological Testing and Evaluation</td>
</tr>
<tr>
<td>381 or 382 Individual Reading in Psychology</td>
</tr>
</tbody>
</table>

From Group IV Education:

| SGN 251 Education of Exceptional Children | 2 |
| SEI 301 Emotionally Impaired Children | 4 |

<table>
<thead>
<tr>
<th>Group III Social Sciences</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course in American government from</td>
<td></td>
</tr>
<tr>
<td>112, 113, or 202</td>
<td>3</td>
</tr>
<tr>
<td>One course in history</td>
<td>3</td>
</tr>
<tr>
<td>105 Introductory Sociology</td>
<td>3</td>
</tr>
<tr>
<td>135 Introduction to Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>One of the following:</td>
<td></td>
</tr>
<tr>
<td>204 Marriage and Family</td>
<td>3</td>
</tr>
<tr>
<td>309 Culture and Personality</td>
<td></td>
</tr>
<tr>
<td>310 Contemporary American Class Structure</td>
<td></td>
</tr>
<tr>
<td>402 Group Dynamics</td>
<td></td>
</tr>
<tr>
<td>406 Criminology</td>
<td></td>
</tr>
</tbody>
</table>

One course in fundamentals of speech.

One elective course in English language, in a foreign language, in speech, or in library science (Group I).
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 V Fine Arts ....................................... 72
  Music Theory-Literature and History
    (101, 102, 201, 202, 301, 302, 413) .................. 24
  324 Recreational Music ................................ 2
  326 Conducting ......................................... 2
  Ensembles ................................................. 4
  100-300 Applied Music (Principal Instrument) . 12
  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
    Three of the following: ............................... 3
      211 Basic Brass Class
      241 Basic Percussion
      261 Basic String
      281 Basic Woodwind
  103 Introduction to Music Therapy .................... 1
  303 Psychology of Music I ............................. 2
  304 Psychology of Music II ............................ 2
  403 Influence of Music on Behavior .................. 2
  404 Music in Therapy I .................................. 2
  405 Music in Therapy II .................................. 2
  406 Clinical Training in Music Therapy ............. 1
  Music Electives ........................................ 3
Group VII Physical Education ........................... 4
  Four semester hours in activity courses to be
  chosen from the following or other courses
  equally appropriate to the Music Therapy Degree:
    PEC 103 Couple, Square, and Ballroom Dancing
    PEC 158 Folk Dancing
    PEC 161 Modern Dance
    PEC 258 Intermediate Folk Dancing
    PEC 261 Intermediate Modern Dance
  Free electives ......................................... 0
  Total .................................................. 124–127

Students completing the above curriculums have met the major and minor requirements for graduation. No outside minor is needed.

BACHELOR OF MUSIC THERAPY DEGREE

With Certification in Music Education

Adviser, Mary Phipps

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 page 35 and must also include the following specific courses in the groups indicated:

Group II Science and Mathematics
  105 Biology and the Human Species .................. 4
  270 Human Physiology ................................ 3
  360 Abnormal Psychology ................................ 3
  Four credit hours from:
    308 Social Psychology, 321 Child Psychology,
    322 Psychology of Adolescence, 352 Psychological Testing and Evaluation, 381 or
    382 Individual Readings in Psychology, or
    from Group IV 251 Education of Exceptional Children or 301 Emotionally Impaired Children.

Group III Social Sciences
  105 Introduction to Sociology, 135 Introduction
  to Cultural Anthropology and one of the follow­
  ing: 204 Marriage and Family, 309 Culture
  and Personality, 310 Contemporary
  American Class Structure, 402 Group Dynamics
  or 406 Criminology.

Group V Fine Arts
  324 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:
    305 Keyboard Skills ................................ 2
    274 Functional Guitar ................................ 2
    One additional secondary instrument class
    (Bachelor of Music Education Vocal only) ........ 1
    101-A01 Voice (Bachelor of Music Education In­
    strumental only) ..................................... 1
  The total Music Therapy 12 semester hour se­
  quence listed on the curriculum above: 103
  Introduction to Music Therapy, 303 Psychol­
  ogy of Music I, 304 Psychology of Music II,
  403 Influence of Music on Behavior, 404 Mu­
  sic in Therapy I, 405 Music in Therapy II and
  406 Clinical Training in Music Therapy.

Group VII Physical Education and Health
  Four semester hours in activity courses to be
  chosen from the following or other courses
  equally appropriate to the Music Therapy degree:
    PEC 103 Couple, Square and Ballroom Dancing
    PEC 158 Folk Dancing
    PEC 161 Modern Dance
    PEC 258 Intermediate Folk Dancing or
    PEC 261 Intermediate Modern Dance

Music Major (Non-teaching: 49 semester hours)

The student will complete the requirements for the Bachelor of Arts degree curriculum, page 34, or the Bachelor of Science degree curriculum, page 34, by including the following 49 semester hour major and a different minor subject of 20 semester hours. In completing either of these curriculums, the student does not earn a teaching certificate.

<table>
<thead>
<tr>
<th>Group</th>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>II</td>
<td></td>
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<td>III</td>
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<tr>
<td>V</td>
<td></td>
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</tr>
<tr>
<td>VII</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music</td>
<td></td>
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</tr>
</tbody>
</table>
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.

**NUCLEAR MEDICINE TECHNOLOGY**

Bachelor of Science Degree

Nuclear Medicine Technology is an important emerging profession in the health care delivery system. It is concerned with the use of radioactive material for diagnostic and therapeutic purposes. Nuclear Medicine procedures consist of organ imaging, radioactive analysis of biologic specimens and use of radioactive therapy. The program at Eastern Michigan University is the first program in Michigan that leads to a bachelor's degree in this field.

A major is allowed in Nuclear Medical Technology and includes three years on campus and one year of internship in the Nuclear Medicine Department at the University of Michigan Hospital. As a result of this program, and because of clinical limitations, only ten students per year will be accepted into the program at the beginning of the junior year and will be guaranteed an internship for the fourth or professional year of the program.

Upon completion of the curriculum and successful achievement of the registry examination, certification in Nuclear Medicine Technology will be awarded to the student by the American Society of Clinical Pathologists (or American Society of Radiologists).

First Year

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course in English Composition or, if eligible, a foreign language course (121 through 122)</td>
<td>3</td>
</tr>
<tr>
<td>120 Calculus</td>
<td>4</td>
</tr>
<tr>
<td>105 or 106 Biological Science</td>
<td>2-4</td>
</tr>
<tr>
<td>131 General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>Physical education activity or military science</td>
<td>1</td>
</tr>
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</table>

Second Year

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>121 Fundamentals of Speech</td>
<td>2</td>
</tr>
<tr>
<td>112 American Government or 202 State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td>105 Introductory Sociology</td>
<td>3</td>
</tr>
<tr>
<td>221 Mechanics, Sound and Heat</td>
<td>4</td>
</tr>
<tr>
<td>132 General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>Physical education activity or military science</td>
<td>1</td>
</tr>
</tbody>
</table>

Second Year

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective Course in Group I</td>
<td>3</td>
</tr>
<tr>
<td>Social Science requirement</td>
<td>3</td>
</tr>
<tr>
<td>222 Electricity and Light</td>
<td>4</td>
</tr>
<tr>
<td>270 Organic Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>271 Organic Chemistry Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>Physical education activity</td>
<td>1</td>
</tr>
</tbody>
</table>

**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.**

*Students receiving a grade below "B" in high school trigonometry and advanced algebra, should elect 105 Algebra and 107 Trigonometry before electing this course. Moreover, if 105 and 107 are taken, 312 Sociology and 256 Electronics would be at the option of the student.*
Second Semester ........................ (17)
  Humanities requirements ................. 3
  Social Science requirement ............... 3
  Introduction to Electronics .............. 3
    (a course to be developed) ............ 3
  281 Quantitative Analysis ............... 4
  312 Medical Sociology ................... 3
  Physical education activity ............. 1

  Third Semester ........................... (14)
  Humanities requirement ................. 6
  202 Human Anatomy and Physiology ..... 3
  **NUR 320 Pathology ................... 2
  SPH 227 Interpersonal Communication .... 3
  SPH 228 Introduction to Computer Programming .... 3
  HEC 109 Interpersonal Relations in Family ...... 3

  Fourth Year ............................... (124)
  Nuclear Medicine Technology Internship .. (30)

  Recommended electives to complete the minimum 124 semester hours or chosen in addition are as follows:
  CHM 351-352 Biochemistry
  PHY 470 Nuclear Physics
  PSY 101 General Psychology
  SPH 225 Listening Behavior
  SPH 227 Interpersonal Communication
  G&C 405 Basic Guidance Concepts and Processes
  HEC 109 Interpersonal Relations in Family
  IED 213 Occupational Safety and Health
  MDT 101 Introduction to Medical Technology and Nuclear Medicine Technology

**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.

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 120 Fundamentals of Chemistry, 101 General Psychology, and either 105 Introductory Sociology or 135 Cultural Anthropology.

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, completed on a trimester basis in two calendar years. No provisions are made to compress or spread out these six semesters of professional 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. Also, for students to perform successfully in the program, it is necessary for them to have an adequate knowledge and skill base upon which to build. Therefore, the following policy has been established: 1) Once admitted to the EMU nursing program, students must complete all nursing sequence courses (NUR), including 270 Pharmacology and 320 Pathology within a period of 4 calendar years if they are to be applied toward graduation on the nursing curriculum. 2) The time limit requirement may be waived by the Nursing Department upon the successful completion of challenge exams in specified subject areas to be determined by the department. 3) 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. 4) Challenge exams will also be required for anatomy and physiology on transfer credits from another institution.

A letter grade of "D" in any nursing course or other required course in Groups II, IV, or VI automatically warns the student of difficulty and the need for counseling. Another "D" in any other of the required courses from those same groups will result in dismissal from the nursing program. Any "E" grade in a nursing course or other required course in Groups II, IV or VI will also result in dismissal.

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 35. 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.

**Presently, 320 Pathology is taught in the winter semester, 270 Pharmacology is taught in the spring-summer semester. When the revised nursing curriculum is instituted, possibly fall 1978, pharmacology will be taught in the fall semester and pathology will remain in the winter semester.**
CURRICULUM IN NURSING

Bachelor of Science Degree
Adviser Chairperson, Deanna L. Gaus

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 .................... 18
201 Anatomy and Physiology ......................... 3
202 Anatomy and Physiology ......................... 3
101 General Psychology ............................... 3
120 Fundamentals of Chemistry ..................... 4
320 Pathology ........................................... 2
328 Introductory Microbiology .................... 3

Group III Social Sciences .......................... 12
One course in history ................................ 3
Either of the following:
112 American Government or
202 State and Local Government ............... 3
Either of the following:
105 Introductory Sociology or
135 Cultural Anthropology ....................... 3
An advanced sociology course .................. 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 Education .................................. 4
320 Human Growth and Development ............ 4

Group VI Practical Arts ............................. 46
HEC 202 Human Nutrition ......................... 3
204 Framework for Nursing ....................... 6
250 Nursing Science I .................................. 3
251 Nursing Science I Laboratory ............. 3
270 Pharmacology ..................................... 2
304 Nursing Science II .................................. 3
305 Nursing Science II Laboratory ........... 3
350 Nursing Science III .................................. 3
351 Nursing Science III Laboratory ........... 4
370 Physical Assessment ......................... 3
404 Nursing Science IV .................................. 3
405 Nursing Science IV Laboratory ........... 5
450 Nursing Science V .................................. 3
451 Nursing Science V Laboratory ............ 4

Group VIII Physical Education and Health .... 4
Physical Education Activity Courses ............ 4
Note: Two semester hours of military science may be applied toward this requirement.

Electives ........................................... 19–17
Total .................................................. 124

The courses listed in Group VI Practical Arts and 201, 202 Anatomy and Physiology will satisfy University requirements for a 50-semester hour curriculum concentration. No outside minor is needed.

NUTRITION MINOR
Administered by the Home Economics Department

(20 semester hours)

Semester Hours

Required Courses .................................. 16–17
102 Family Food Management ................... 2
251 Meal Management .................................. 2–3
107 Food for Man ...................................... 2
116 Foods for Consumers ......................... 3
201 Nutrition for the Family or
202 Human Nutrition .................................. 3
412 Nutrition of the Life Cycle ................. 3
416 Contemporary Issues in Nutrition ........ 3
Electives chosen from the following .............. 3–4
213 Family Health Care ......................... 2
402 Nutrient Metabolism .................................. 3
414 Field Experience in Home Economics
(Foods and Nutrition) .................................. 3
415 Diet and Disease .................................. 3

This is a non-teaching minor except as a part of the curriculum for teachers of Consumer and Home Economics Education.

• 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 an affiliated agency. 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 Council of Medical Education 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.

2. Criteria for Admission
Admission to the occupational therapy curriculum is based on the following:

a. Generally, a minimum grade point average of 2.5 on a 4.0 scale; at least a "C" in the prerequisite courses in (b).

b. Completion of at least 40 semester hours of college credit (in addition to physical education activity courses) including the following prerequisites:
101 Psychology ........................................ 5
105 Sociology ....................................... 5
105 Biology ........................................... 5
109 Chemistry ...................................... 5
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...
submitted to the Department of Occupational Therapy: 200 or higher level Sociology, Human Growth and Development or Child Psychology or Psychology of Development, 360 Abnormal Psychology, 101 Art or some other basic design course. 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 work or volunteer experience supervisor 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 final grade of "D" 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. Field Work Placements
Assignment to field work placements will require the recommendation of the occupational therapy faculty based on the established criteria for continuance.

A minimum of six months of successful field work experience is required.

5. Certification Examination
The American Occupational Therapy Association requires successful completion of all academic requirements, field work experiences and the recommendation of the faculty to be eligible for the certification examination. A registered occupational therapist is one who has passed the certification examination.

6. General Information
The professional segment of the program requires four semesters of work, plus a minimum of six months field work experience. Courses in the occupational therapy major are 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 35. 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 4 credits in physical education activity courses) required for graduation.

**OCCUPATIONAL THERAPY CURRICULUM**

Bachelor of Science Degree

Adviser Chairman, Lyla M. Spelbring

<table>
<thead>
<tr>
<th>Group I—Language</th>
<th>8—9</th>
</tr>
</thead>
<tbody>
<tr>
<td>101 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>105 Biology and the Human Species</td>
<td>4</td>
</tr>
<tr>
<td>119 Fundamentals of Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>* Biology Department Courses in development, covering anatomy, physiology and neuroanatomy</td>
<td>9</td>
</tr>
<tr>
<td>360 Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>*OT 303 Conditions of Early Childhood</td>
<td>3</td>
</tr>
<tr>
<td>*OT 403 Conditions of Childhood and Adolescence</td>
<td>3</td>
</tr>
<tr>
<td>*OT 413 Conditions of Adulthood and Aging</td>
<td>3</td>
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</table>

<table>
<thead>
<tr>
<th>Group II—Science and Mathematics</th>
<th>32</th>
</tr>
</thead>
<tbody>
<tr>
<td>101 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>105 Biology and the Human Species</td>
<td>4</td>
</tr>
<tr>
<td>119 Fundamentals of Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>* Biology Department Courses in development, covering anatomy, physiology and neuroanatomy</td>
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<td>3</td>
</tr>
<tr>
<td>*OT 403 Conditions of Childhood and Adolescence</td>
<td>3</td>
</tr>
<tr>
<td>*OT 413 Conditions of Adulthood and Aging</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>Group III—Social Sciences</th>
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</tr>
</thead>
<tbody>
<tr>
<td>105 Introductory Sociology</td>
<td>3</td>
</tr>
<tr>
<td>Either of the following:</td>
<td></td>
</tr>
<tr>
<td>112 American Government or</td>
<td></td>
</tr>
<tr>
<td>202 State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td>Elective in sociology (200 level or higher)</td>
<td>3</td>
</tr>
<tr>
<td>Humanities</td>
<td>11—12</td>
</tr>
<tr>
<td>Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.</td>
<td></td>
</tr>
<tr>
<td>One course in philosophy or religion</td>
<td></td>
</tr>
<tr>
<td>101 Introduction to Art or equivalent</td>
<td>2—3</td>
</tr>
<tr>
<td>(fulfills requirement for Group V)</td>
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</table>

<table>
<thead>
<tr>
<th>Group IV—Education</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>320 Human Growth and Development or equivalent</td>
<td>4</td>
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<table>
<thead>
<tr>
<th>Group V—Fine Arts</th>
<th>(2—3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>101 Intro to Art</td>
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<tr>
<td>(credit assigned as Humanities requirement)</td>
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<table>
<thead>
<tr>
<th>Group VI—Practical Arts</th>
<th>36</th>
</tr>
</thead>
<tbody>
<tr>
<td>*IED 358 Tools and Materials</td>
<td>3</td>
</tr>
<tr>
<td>*OT 300 Introduction to OT</td>
<td>3</td>
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</tbody>
</table>

*Completion of courses identified satisfies all major and minor requirements for graduation. No outside minor is needed.*
*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 422 Fieldwork (full-time) ................. 3
*OT 423 Fieldwork (full-time) ................. 3
Free electives ................................. 8–10
*Issues in Health Care
(course being developed) .................... 3
Group VII—Physical Education and Health ..... 4
Physical Education Activity Courses ......... 4
Total ........................................... 124

PRE-PHARMACY CURRICULUM

Adviser Chairman, Edward L. Compere, Jr.
Chemistry Department
One Year

Semester Hours

Group I Drama, Language, Literature
and Speech .................................. 5
121 English Composition ...................... 3
121 Fundamentals of Speech .................. 2
Group II Science ............................ 17–21
105 Biology and the Human Species or
106 Orientation to Biology ................... 2–4
131 General Chemistry I ...................... 5
132 General Chemistry II ..................... 4
221 General Botany ............................ 4
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.

*Completion of courses identified satisfies all major and minor requirements for graduation. No outside minor is needed.

PHILOSOPHY

Adviser Chairman: Frederick M. Anderson
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

Semester Hours

Required courses:
160 Introduction to Logic ..................... 3
230 History of Philosophy: Ancient and
Medieval ..................................... 3
231 History of Philosophy: Modern .......... 3
Two Courses from Group A ................. 6
425 Theory of Knowledge
442 Philosophy of Mind
460 Philosophy of Language
470 Contemporary European Philosophy
471 Contemporary British and American
Philosophy
480 Metaphysics
One Course from Group B ................. 3
212 Philosophical Bases of Contemporary Art
213 Philosophical Bases of Contemporary Art
220 Ethics
280 Philosophical Foundations of Political
Thought
310 Aesthetics
355 Philosophy of Law
400 Philosophy Seminar-Topics or
405 Philosophy Seminar-Individually ...... 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:
160 Introduction to Logic ..................... 3
200 Types of Philosophy ...................... 3
230 History of Philosophy: Ancient and
Medieval ..................................... 3
231 History of Philosophy: Modern .......... 3
Electives (to be chosen from other
philosophy courses) ....................... 8
CURRICULUM FOR TEACHERS OF
PHYSICAL EDUCATION

Bachelor of Science Degree

*Elementary or Secondary Provisional Certificate

Adviser Chairman, Patric L. Cavanaugh

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 35. 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 120 hours required for graduation exclusive of any credits in physical education activity courses.

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
   101 General Psychology .................... 3
   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:
   112 American Government or
   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).

*If an elementary provisional certificate is desired, consult with the dean of Academic Records and Teacher Certification or director of the Academic Services Center regarding special requirements. In Group II, 101 Functional Math is recommended for those seeking elementary certification.

Group IV Education .......................... 21
   302 Educational Psychology .............. 3
   303 Principles of Teaching .............. 3
   367 Methods and Materials in Physical Education .......... 2
   418 Seminar in Education .................. 2
   440 Tests and Measurements in Physical Education .......... 2
   492 Student Teaching ...................... 8

Group VII Physical Education and Health .... 45
   200 Anatomy and Physiology .............. 5
   204 Kinesiology ..................................... 2
   240 History and Philosophy .............. 2
   300 Physiology of Exercise .............. 3
   312 First Aid, Athletic Training and Physio-Therapy .......... 2
   334 Adapted Physical Education .......... 2
   Approved electives (must relate to the area of Physical Education: see adviser for suggested courses) .... 14

A student may wish to select a concentration area such as:

- Concentration in Coaching (14 hours)

Select two courses from the following:
   PED 305 Psychology of Coaching .......... 2
   PED 310 Human Performance ............. 2
   PED 315 Concepts of Conditioning .......... 3
   PED 405 Women in Sport .......... 3

Select three courses from the following:
   PED 261 Techniques of Officiating
      Men’s Sports ..................................... 2
   PED 262 Techniques of Officiating
      Women’s Sports ..................................... 2
   PED 263 Theory and Practice of Football .......... 1
   PED 264 Theory of Coaching Individual Sports
      for Women ..................................... 2
   PED 265 Theory and Practice of Baseball .......... 1
   PED 266 Theory of Coaching
      and Teaching Team Sports .......... 2
   PED 267 Theory and Practice of Basketball .......... 1
   PED 269 Theory and Practice of Track .......... 1
   Remaining elective hours from any of the above courses.

Physical education major activity courses
(see below) ............................................ 15

Free electives .................................... 31–24

Total ........................................... 135

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.
Major Activity Courses

To best assure readiness for a teaching position, a wide selection of activity courses is available. The student should select, in consultation with and on the approval of a department academic adviser, a sequence of courses which is based upon previous experience. A minimum of fifteen (15) semester hours is required. ONLY P118: ACTIVITIES FOR ELEMENTARY GRADES, one semester hour, is required of all students.

The sequence of courses must include two (2) courses from at least four (4) of the emphasis areas indicated below. Students may also develop specializations by electing a minimum of five (5) courses in an emphasis area.

Each activity course carries one semester hour of credit unless otherwise indicated. Grades for activity courses are not used in calculating the student's university grade point average.

Minimum Required Semester Hours

<table>
<thead>
<tr>
<th>Emphasis Group “A”—Team Sports</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>P112 Field Hockey and Volleyball</td>
<td></td>
</tr>
<tr>
<td>P121 Individual and Team Sports</td>
<td></td>
</tr>
<tr>
<td>P152 Track and Field for Women</td>
<td></td>
</tr>
<tr>
<td>P140 Women's Basketball and Softball</td>
<td></td>
</tr>
<tr>
<td>P236 Intermediate Volleyball</td>
<td></td>
</tr>
<tr>
<td>P237 Intermediate Basketball</td>
<td></td>
</tr>
<tr>
<td>P239 Soccer</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Emphasis Group “B”—Individual Sports</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>P121 Individual and Team Sports</td>
<td></td>
</tr>
<tr>
<td>P123 Wrestling</td>
<td></td>
</tr>
<tr>
<td>P142 Golf and Bowling</td>
<td></td>
</tr>
<tr>
<td>C109 Jishukan Jujitsu</td>
<td></td>
</tr>
<tr>
<td>C143 Fencing</td>
<td></td>
</tr>
<tr>
<td>C147 Archery</td>
<td></td>
</tr>
<tr>
<td>C209 Intermediate Jishukan Jujitsu</td>
<td></td>
</tr>
<tr>
<td>C225 Intermediate Golf</td>
<td></td>
</tr>
<tr>
<td>C228 Intermediate Badminton</td>
<td></td>
</tr>
<tr>
<td>C243 Intermediate Fencing</td>
<td></td>
</tr>
<tr>
<td>C248 Intermediate Tennis</td>
<td></td>
</tr>
<tr>
<td>C309 Jujitsu-Brown Belt</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Emphasis Group “C”—Gymnastics</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>P115 Men's Gymnastics</td>
<td></td>
</tr>
<tr>
<td>P216 Teaching Women's Gymnastics</td>
<td></td>
</tr>
<tr>
<td>C219 Women's Intermediate Apparatus</td>
<td></td>
</tr>
<tr>
<td>P315 Teaching Gymnastics</td>
<td></td>
</tr>
<tr>
<td>C316 Intermediate Tumbling and Floor Exercise for Women</td>
<td></td>
</tr>
<tr>
<td>P415 Judging-Coaching Men's Gymnastics</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Emphasis Group “D”—Aquatics</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>P126 Beginning Swimming</td>
<td></td>
</tr>
<tr>
<td>P129 Aquatics</td>
<td></td>
</tr>
<tr>
<td>C117 Synchronized Swimming</td>
<td></td>
</tr>
<tr>
<td>C253 Intermediate Swimming</td>
<td></td>
</tr>
<tr>
<td>C254 Diving Techniques and Competitive Swimming</td>
<td></td>
</tr>
<tr>
<td>C353 Life Saving</td>
<td></td>
</tr>
<tr>
<td>C453 Water Safety Instructors—ARC</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Emphasis Group “E”—Dance and Movement</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>P110 Fundamentals of Movement</td>
<td></td>
</tr>
<tr>
<td>P116 Beginning Modern Dance Technique</td>
<td></td>
</tr>
<tr>
<td>P120 Intermediate Modern Dance Technique</td>
<td></td>
</tr>
<tr>
<td>P124 Folk Dance</td>
<td></td>
</tr>
<tr>
<td>P132 Beginning Modern Dance</td>
<td></td>
</tr>
<tr>
<td>P150 Advanced Technique and Composition of Modern Dance</td>
<td></td>
</tr>
</tbody>
</table>

| C103 Couple, Square, Ballroom Dance | |
| C155 Jazz I | |
| C160 Ballet | |
| C255 Jazz II | |
| C258 Intermediate Folk Dance | |
| C260 Intermediate Ballet | |

Additional Electives

- P131 Service Teaching
- P133 Service Teaching
- P134 Service Teaching
- P136 Service Teaching
- P141 Service Teaching
- P143 Service Teaching
- P144 Service Teaching
- P146 Service Teaching
- C121 Orienteering
- C221 Cycling
- C234 Jogging
- C235 Softball
- C321 Backpacking

PHYSICAL EDUCATION MINOR

(27 semester hours)

Designed for those who want to coach but not teach physical education.

Required courses:

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>200: Anatomy and Physiology</td>
</tr>
<tr>
<td>2</td>
<td>204: Kinesiology</td>
</tr>
<tr>
<td>3</td>
<td>Three of the following courses</td>
</tr>
<tr>
<td>1</td>
<td>263: Theory and Practice of Football</td>
</tr>
<tr>
<td>1</td>
<td>265: Theory and Practice of Baseball</td>
</tr>
<tr>
<td>1</td>
<td>267: Theory and Practice of Basketball</td>
</tr>
<tr>
<td>1</td>
<td>269: Theory and Practice of Track</td>
</tr>
<tr>
<td>2</td>
<td>312: First Aid, Athletic Training and Physiotherapy</td>
</tr>
<tr>
<td>3</td>
<td>367: Methods and Materials in Physical Education</td>
</tr>
<tr>
<td>3</td>
<td>441: Organization and Administration of Physical Education</td>
</tr>
<tr>
<td>2</td>
<td>Electives from Group VII</td>
</tr>
</tbody>
</table>

Required activity courses: 7

Five of the following courses: 5
- P115: Gymnastics
- P118: Activities for Elementary Grades
- P121: Individual and Team Sports
- C103: Couple, Square, Ballroom Dancing
- P123: Wrestling
- P129: Aquatics

The following service teaching courses:
- P131: Service Teaching
- P133: Service Teaching

Semester Hours

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>P115: Gymnastics</td>
</tr>
<tr>
<td>1</td>
<td>P118: Activities for Elementary Grades</td>
</tr>
<tr>
<td>1</td>
<td>P121: Individual and Team Sports</td>
</tr>
<tr>
<td>1</td>
<td>C103: Couple, Square and Ballroom Dancing</td>
</tr>
<tr>
<td>1</td>
<td>P123: Wrestling</td>
</tr>
<tr>
<td>1</td>
<td>P129: Aquatics</td>
</tr>
</tbody>
</table>

Designed for those who want to coach but not teach physical education.
PHYSICAL SCIENCE
Adviser Chairman: Daniel Trochet
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.

Semester hours
Required courses ........................................ 34
GEO 108 Earth Science ................................... 4
GEO 223 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 courses ... 3–4
MTH 121 Calculus II ................................ 4
MTH 136 Survey of Computer Science .......... 3
MTH 137 Introduction to Computer Prog ........ 3
Additional electives chosen from Physics and Astronomy to complete 20 hours in Physics and Astronomy including at least one laboratory course ... 3
Regular Cognate Minor .............................. 10–12
Additional electives 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
All electives must be approved by the adviser.
See also Additional Physics requirements below.

PHYSICS

Physics Research Major (36 semester hours)
The research major provides the necessary background for those planning to become professional physicists. The requirements listed below insure 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

*Students may elect Physics 223 and 224 instead of 221 and 222.
**Students wishing to minor in Chemistry must elect Chemistry 131 and 132 instead of 119 and 120.

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
Total .................................................. 36

Additional Requirements:
These courses in mathematics constitute an automatic mathematics minor. No additional minor is needed to meet graduation requirements.
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 the Scientist .......... 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
MTH 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

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 221 Mechanics, Sound and Heat and 222 Electricity and Light may request the department to approve substitution of these courses for 223 Mechanics, Sound and Heat and 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 six semester hours in this department; those minoring must take a minimum of three semester hours.

Physics majors and physical science majors who are candidates for teachers' certificates will take 325 Methods of Teaching the Physical Sciences in addition to the requirements of the major.

POLITICAL SCIENCE
Administered by the 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 most reward on a voluntary or part-time basis: practical politics, community organization, "good government" groups, and political offices at the local level.

Major [30 semester hours]

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Required course:</td>
<td>3</td>
</tr>
<tr>
<td>112 American Government or 113 American Government (honors)</td>
<td>3</td>
</tr>
<tr>
<td>B. Elect at least six courses from the following, including one course in each of the four categories:</td>
<td>18</td>
</tr>
<tr>
<td>I. Political Enquiry: Theory and Methods</td>
<td></td>
</tr>
<tr>
<td>210 Comparative Political Analysis</td>
<td></td>
</tr>
<tr>
<td>310 Scope and Methods of Political Science</td>
<td></td>
</tr>
<tr>
<td>410 Political Science in Fiction</td>
<td></td>
</tr>
<tr>
<td>415 Classical Political Theory</td>
<td></td>
</tr>
<tr>
<td>II. American Politics</td>
<td></td>
</tr>
<tr>
<td>202 State and Local Government</td>
<td></td>
</tr>
<tr>
<td>216 Municipal Government</td>
<td></td>
</tr>
<tr>
<td>270 Introduction to Public Administration</td>
<td></td>
</tr>
<tr>
<td>280 The American Presidency</td>
<td></td>
</tr>
<tr>
<td>301 The American Legal System</td>
<td></td>
</tr>
<tr>
<td>330 Urban Politics</td>
<td></td>
</tr>
<tr>
<td>332 Intergovernmental Relations and Federalism</td>
<td></td>
</tr>
<tr>
<td>335 Labor in American Politics</td>
<td></td>
</tr>
<tr>
<td>358 Parties, Elections and Interest Groups</td>
<td></td>
</tr>
<tr>
<td>359 Public Opinion and Propaganda</td>
<td></td>
</tr>
<tr>
<td>364 Legislative Process</td>
<td></td>
</tr>
<tr>
<td>377 American Foreign Policy Process</td>
<td></td>
</tr>
<tr>
<td>381 Public Policy Analysis</td>
<td></td>
</tr>
<tr>
<td>385 Judicial Process and Behavior</td>
<td></td>
</tr>
<tr>
<td>III. Foreign Political Systems</td>
<td></td>
</tr>
<tr>
<td>211 European Political Systems</td>
<td></td>
</tr>
<tr>
<td>212 Asian Political Systems</td>
<td></td>
</tr>
<tr>
<td>354 Government and Politics of Canada</td>
<td></td>
</tr>
<tr>
<td>361 Government and Politics of the U.S.S.R.</td>
<td></td>
</tr>
<tr>
<td>367 Contemporary Political Systems of Latin America</td>
<td></td>
</tr>
<tr>
<td>371 Government and Politics of the Middle East</td>
<td></td>
</tr>
<tr>
<td>372 Government and Politics of Sub-Saharan Africa</td>
<td></td>
</tr>
<tr>
<td>IV. International Politics and Relations</td>
<td></td>
</tr>
<tr>
<td>271 Introduction to International Relations</td>
<td></td>
</tr>
<tr>
<td>341 International Law</td>
<td></td>
</tr>
<tr>
<td>342 International Organization</td>
<td></td>
</tr>
<tr>
<td>362 Foreign Relations of the Soviet Union</td>
<td></td>
</tr>
<tr>
<td>377 American Foreign Policy Process</td>
<td></td>
</tr>
<tr>
<td>C. Electives in Political Science to complete 30 hours</td>
<td>9</td>
</tr>
</tbody>
</table>

Minor (20–21 semester hours)

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Required course:</td>
<td>3</td>
</tr>
<tr>
<td>112 American Government or 113 American Government (honors)</td>
<td>3</td>
</tr>
<tr>
<td>B. Elect at least four courses listed above, including one course each from the four fields</td>
<td>12</td>
</tr>
<tr>
<td>C. Electives in Political Science to complete 20–21 hours</td>
<td>6</td>
</tr>
</tbody>
</table>

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.

PRODUCTION SYSTEMS ANALYSIS

Administered by the 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)

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>417 Development of Management</td>
<td>15</td>
</tr>
<tr>
<td>Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>418 Operations Research</td>
<td>3</td>
</tr>
<tr>
<td>491 Design Problems of Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>492 Operations Planning and</td>
<td></td>
</tr>
<tr>
<td>Scheduling Problems</td>
<td>3</td>
</tr>
<tr>
<td>493 Material Management and Quality Control</td>
<td>3</td>
</tr>
<tr>
<td>Restricted Electives</td>
<td>9</td>
</tr>
<tr>
<td>316 COBOL Programming, or</td>
<td></td>
</tr>
<tr>
<td>317 System Simulation</td>
<td>3</td>
</tr>
<tr>
<td>ACC 342 Managerial Cost Accounting, or</td>
<td></td>
</tr>
<tr>
<td>ACC 466 Financial Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>MGT 384 Personnel Management, or</td>
<td>3</td>
</tr>
<tr>
<td>PSY 351 Industrial Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

### 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:

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 382 Introduction to Management</td>
<td>3</td>
</tr>
<tr>
<td>ORI 418 Operations Research</td>
<td>3</td>
</tr>
<tr>
<td>ORI 491 Design Problems of Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>ORI 492 Operation Planning and</td>
<td></td>
</tr>
<tr>
<td>Scheduling Problems</td>
<td>3</td>
</tr>
<tr>
<td>ORI 493 Material Management and Quality Control</td>
<td>3</td>
</tr>
<tr>
<td>Restricted Electives</td>
<td>6</td>
</tr>
<tr>
<td>ORI 316 COBOL Programming, or</td>
<td></td>
</tr>
<tr>
<td>ORI 417 Development of Management</td>
<td>3</td>
</tr>
<tr>
<td>Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>MGT 384 Personnel Management, or</td>
<td>3</td>
</tr>
<tr>
<td>PSY 351 Industrial Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

### PSYCHOLOGY

#### Major (30 semester hours)

<table>
<thead>
<tr>
<th>Required courses:</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>101 or 102 General Psychology</td>
<td>13–14</td>
</tr>
<tr>
<td>205 Quantitative Methods in Psychology</td>
<td>3</td>
</tr>
<tr>
<td>301 Experimental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>453 History and Systems of Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Restricted electives of one each from the following</td>
<td></td>
</tr>
<tr>
<td>groups:</td>
<td></td>
</tr>
<tr>
<td>Group A—Adjustment and Personality</td>
<td>12</td>
</tr>
<tr>
<td>360 Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>451 Dynamics of Personality</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Group B—Biological

<table>
<thead>
<tr>
<th>Elective Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>357 Sensation and Perception</td>
<td>3</td>
</tr>
<tr>
<td>457 Physiological Psychology</td>
<td>3</td>
</tr>
<tr>
<td>458 Comparative Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Group C—Learning and Motivation

<table>
<thead>
<tr>
<th>Elective Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>304 Learning</td>
<td>3</td>
</tr>
<tr>
<td>356 Motivation</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Group D—Developmental

<table>
<thead>
<tr>
<th>Elective Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>321 Child Psychology</td>
<td>3</td>
</tr>
<tr>
<td>322 Psychology of Adolescence</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives by advisement ................................ 5–4

### Minor (20 semester hours)

<table>
<thead>
<tr>
<th>Elective Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>101 or 102 General Psychology</td>
<td>3–4</td>
</tr>
<tr>
<td>Electives in psychology</td>
<td>17–16</td>
</tr>
</tbody>
</table>

(as approved by psychology adviser)

### PUBLIC ADMINISTRATION PROGRAM

Administered by the 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.

<table>
<thead>
<tr>
<th>Required courses:</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLS 270 Public Administration</td>
<td>3</td>
</tr>
<tr>
<td>ECO 201 Principles of Economics I</td>
<td>3</td>
</tr>
<tr>
<td>ECO 202 Principles of Economics II</td>
<td>3</td>
</tr>
<tr>
<td>SOC 105 Introductory Sociology</td>
<td>3</td>
</tr>
<tr>
<td>MGT 386 Organization Theory and Development</td>
<td>3</td>
</tr>
<tr>
<td>ECO 350 Public Finance</td>
<td>3</td>
</tr>
<tr>
<td>ACC 246 Accounting for Public Administrators</td>
<td>3</td>
</tr>
<tr>
<td>PLS 381 Public Policy Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ORI 215 Computers in Business</td>
<td>3</td>
</tr>
</tbody>
</table>

One course from each of the following three categories: ................................ 9

<table>
<thead>
<tr>
<th>Elective Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 310 Economic Statistics or SOC 250 Elementary Social Statistics or ORI 365 Business Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>PLS 310 Scope and Methods of Political Science or SOC 404 Methods in Sociological Research</td>
<td>3</td>
</tr>
<tr>
<td>PLS 202 State and Local Government or PLS 216 Municipal Government or PLS 330 Urban Politics</td>
<td>3</td>
</tr>
</tbody>
</table>

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 302 Business Communication
- ACC 240 Principles of Accounting
- MGT 284 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. Required course:
- MGT 482 Wage and Salary Administration
- MGT 484 Management-Union Relations
- MGT 485 Training Function in Organizations
- MGT 486 Strategies for Organizational Development

B. Choose one of the following:
- ACC 446 Government Accounting
- FIN 359 Principles of Finance
- FIN 359 Intermediate Financial Theory
- ECO 455 Economic Efficiency in Public Sector
- INS 351 Introduction to Risk and Insurance

C. ORI 316 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
- MGT 568 Administrative Communications

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 gain 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
- GEO 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 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 214 Racial and Cultural Minorities
- PSY 340 Psychological Perspectives on Prejudice and Discrimination
- HIS 315 History of Black Americans
- SOC 311 Social Gerontology
- SOC 406 Criminology
C. SOC 407 Criminal Justice in Modern Society
- SWK 112 Introduction to Social Welfare Services
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

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 202 State and Local Government (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 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 Photography 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 361 Geography of Population
   SOC 334 Population
   GEO 441 Transportation Geography
   ECO 366 Economics of Transportation
   GEO 235 Economic Geography

F. Choose one of the following:
   GEO 332 Urban Geography
   SOC 306 The Urban Community
   ECO 332 Urban Economics
   PLS 330 Urban Politics
   HIS 382 American 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

Semester Hours

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

Administered by the Department of Political Science
Adviser Chairman, David Hortin

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

Semester Hours

A. Required courses ........................................... 9
   301 American Legal System
   312 American Constitutional Law I or 313 American Constitutional Law II
   220 Comparative Legal Systems or 341 International Law

B. Elect one course in three of the following four categories: ............... 9
   I. Political Enquiry: Theory and Methods
      210 Comparative Political Analysis
      310 Scope and Methods of Political Science
      410 Political Science in Fiction
      415 Classical Political Theory
      416 Modern Political Theory
      418 Recent Political Theory
      422 American Political Theory

II. American Politics
    202 State and Local Government
    216 Municipal Government
    270 Introduction to Public Administration
    280 The American Presidency
    330 Urban Politics
    332 Intergovernmental Relations and Federalism
    335 Labor in American Politics
    358 Parties, Elections and Interest Groups
    359 Public Opinion and Propaganda
    364 Legislative Process
    377 American Foreign Policy Process
    381 Public Policy Analysis

III. Foreign Political Systems
    211 European Political Systems
    212 Asian Political Systems
    354 Government and Politics of Canada
    361 Government and Politics of the U.S.S.R.
    367 Contemporary Political Systems of Latin America
    371 Government and Politics of the Middle East
    372 Government and Politics of Sub-Saharan Africa

IV. International Politics and Relations
    271 Introduction to International Relations
    342 International Organization
    362 Foreign Relations of the Soviet Union
    377 American Foreign Policy Process

C. Elect any four courses from the following: ................................ 12
   220 Comparative Legal Systems
   312 American Constitutional Law I
   313 American Constitutional Law II
   315 Consumer Law and Politics
   341 International Law
   385 Judicial Process and Behavior
   456 Criminal Law I
   440 Field Seminar in Public Law and Government
A. Foundation Courses (7-8 hours)
- 447, 448, 449 Internship in Public Law and Government
- 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:
- 301 American Legal System 6
One of the following:
- 312 American Constitutional Law I or
- 313 American Constitutional Law II or
- 220 Comparative Legal Systems or
- 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 6
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
- ADS 403 Labor Law
- ADS 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.

Radio-Television-Film
Administered by the Speech and Dramatic Arts Department

Major (32 semester hours) Non-Teaching

Semester Hours
A. Foundation Courses 8-9
- 121 Fundamentals of Speech or
- 124 Fundamentals of Speech
- 140 Introduction to Broadcasting and Film
- 141 Introduction to Radio-TV-Film Production
- 165-465 Broadcasting TV
- 169-469 Broadcasting Radio
B. Production-Performance Courses 6
- 240 Broadcast Announcing Techniques
- 331 Fundamentals of Radio Production and Direction
- 332 Fundamentals of Television Production and Direction
- 333 Fundamentals of Film Production
- 340 Broadcast Performance Techniques
- 431 Advanced Radio Production and Direction
- 432 Advanced Television Production and Direction

C. Writing and Theory Courses
- 245 Introduction to Film 6
- 343 Broadcast News
- 344 Broadcast Continuity Writing
- 445 Film Theory
- 446 Broadcasting in Society
- 447 Broadcast Management

D. 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 4-5

Radio-Television-Film Minor (20 semester hours)

Semester Hours
A. Foundation Courses (7-8 hours)
- 121 Fundamentals of Speech or
- 124 Fundamentals of Speech 2-3
- 140 Introduction to Broadcasting and Film 3
- 141 Introduction to Radio-TV-Film Production 2

B. Production-Performance Courses (6 hours)
- 165 Broadcasting-TV 1
- 169 Broadcasting-Radio 1
- 240 Broadcast Announcing Techniques 3
- 331 Fundamentals of Radio Production and Direction 3
- 332 Fundamentals of Television Production and Direction 3
- 333 Fundamentals of Film Production 3
- 340 Broadcast Performance Techniques 3
- 431 Advanced Radio Production and Direction 3
- 432 Advanced Television Production and Direction 3

C. Writing and Theory Courses (3 hours)
- 245 Introduction to Film 3
- 343 Broadcast News 3
- 344 Broadcast Continuity Writing 3
- 445 Film Theory 3
- 446 Broadcasting in Society 3
- 447 Broadcast Management 3

D. Electives 4-3

Electives may be chosen from above courses, courses in the Speech and Dramatic Arts Department or journalism courses.

It is recommended students consult with the Department of Speech and Dramatic Arts before pursuing the Radio-TV-Film minor.

Students may still pursue the Radio-TV-Film option under the Speech major and minor.

- REAL ESTATE

A major in real estate is being developed, but has not yet received final approval. This major, to be completed in conjunction with the Bachelor of Business Administration degree, 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. For the present, see also Real Estate Management under the Finance Major on page 86.
CURRICULUM FOR DIRECTORS AND TEACHERS OF RECREATION

Bachelor of Science Degree

*Elementary or Secondary Provisional Certificate

Adviser Chairman, Ronald J. Saunders
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 35. 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 120 hours required for graduation, exclusive of credit in any physical education activity courses.

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
</table>

**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
101 General Psychology .......................... 3
One laboratory science course.
A second laboratory science course or a course in mathematics.

**Group III Social Sciences** .................... 8
One course in American Government selected from:
112 American Government or 202 State and Local Government 3
One course in history ............................ 3
105 Introductory Sociology ........................ 3
354 Juvenile Delinquency .......................... 3

**Group IV Education** .......................... 21
302 Educational Psychology ........................ 3
303 Principles of Teaching ........................ 3
367 Methods and Materials in Physical Education ........................ 3
418 Seminar in Education .......................... 2
495 Student Teaching in Major (Recreation) .......................... 4
496 Student Teaching in Minor or Physical Education .......................... 4
Elective ........................................ 2

**Group VI Practical Arts** ........................ 6
152 Arts and Crafts ............................... 3
A general course in business ........................ 3

**Group VII Physical Education, Health and Recreation** 42
106 Introduction to the Performing Arts .......................... 3
120 Healthful Living ............................... 3
210 American Standard Red Cross .......................... 2
270 Organization and Administration of Community Recreation .......................... 3
280 Camping ............................... 2
370 Youth Organizations .......................... 2
380 Community Recreation Leadership .......................... 3
470 Field Work in Recreation .......................... 4
(for those not on the education curriculum)
480 Recreation Therapy .......................... 2
Electives ........................................ 6
Physical Education activity courses .......................... 12
Recreation majors must take three service teaching courses (P131, P133, and P143), but may select the rest from any activity class for majors or any coed class for general students.

Electives ........................................ 6
Total ......................................... 21–19
132

Recreation encompasses careers in planning and management in public and private agencies. There are primarily three emphasis areas: recreation therapy, recreation administration and conservation. Students may also elect a teaching degree whereby a position in community education could be obtained.

Recreation Minor

| Semester Hours |

**Required courses** .......................... 27
270 Organization and Administration of Community Recreation .......................... 3
367 Methods and Materials in Physical Education .......................... 3
280 Camping ............................... 2
380 Community Recreation Leadership .......................... 3
480 Recreation Therapy .......................... 2
*Electives ........................................ 7
Physical Education Activity Courses: .......................... 7
P131 or P134 Service Teaching .......................... 1
Major or coed general elective classes .......................... 6

*If an Elementary Provisional Certificate is desired, consult with the dean of Academic Records and Teacher Certification regarding special requirements.
PRE-RELIGIOUS CAREERS CURRICULUM

Adviser Chairman: Charles Minneman, Lester Scherer

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)

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. Catalogs of schools accredited by the American Association of Theological Schools (AATS) are available in the Office of Campus Life, 117 Goodison.

RELIGIOUS STUDIES

Adviser Chairman: Lester B. Scherer
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 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:

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS 201 The Comparative Study of Religion</td>
</tr>
<tr>
<td>At least four courses from Group A below</td>
</tr>
<tr>
<td>Two more courses from either Group A or</td>
</tr>
<tr>
<td>Group B</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.S.M. or M.C.M. (B.A./B.S. + 2 years minimum)</td>
</tr>
<tr>
<td>S.M.D., D.C.M., or D.M.A. (M.S.M. or M.C.M. + 2 years minimum)</td>
</tr>
</tbody>
</table>
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 306 History of Biblical Times ................ 3
HIS 303 History of American Religion .......... 3
PHI 350 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 212 History of Ancient Art ..................... 3
FA 213 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, 1600–1830 .......... 3
CEN 301 Mythology (given in English) ............ 3
CEN 371 Dante in English Translation ............ 3
HIS 327 Europe in the Making, 500–1300 .......... 3
HIS 330 Europe in the Renaissance and Reformation .................. 3
HIS 340 The Middle East and North Africa to 1789 ................. 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.)

CURRICULUM FOR SECONDARY TEACHERS
Junior-Senior High School Curriculum
Bachelor of Arts or Bachelor of Science Degree** State-School Provisional Certificate

(Students intending to teach specialized subjects in junior-senior high school, such as art, business education, consumer and home economics, industrial education, library science, music, physical education, dance, and recreation, should follow the curriculum 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 35. 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.

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
(No more than two courses in one department).
One laboratory science course.
A second laboratory science course or a course in mathematics.
101 General Psychology.

Group III Social Sciences .................................. 9–12
One course in American government selected from:
112 American Government or
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).

Group IV 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 .............................................. 24–25
326 Human Growth and Development ............... 4
326 School and Society ...................................... 6
Methods course ............................................... 2–3
405 Basic Guidance Concepts and Processes ....... 2
418 Seminar in Education ................................. 2
492 Student Teaching ....................................... 8
Group VII—Physical Education and Health .......... 4
Physical education activity courses .................. 4
Note: Two semester hours of military science may be applied toward this requirement.

Free electives ................................................. 58–50
Total ..................................................... 124

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:

*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.
**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.
B.S.: Completion of curriculum.
**First Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>121 or 124 Fundamentals of Speech</td>
<td>2–3</td>
</tr>
<tr>
<td>121 English Composition or</td>
<td></td>
</tr>
<tr>
<td>A foreign language course</td>
<td>3–5</td>
</tr>
<tr>
<td>101, 102 Reading of Literature or</td>
<td>3</td>
</tr>
<tr>
<td>221, 222 Foreign Language</td>
<td>6</td>
</tr>
<tr>
<td>Two laboratory science courses or</td>
<td></td>
</tr>
<tr>
<td>One laboratory science course and</td>
<td></td>
</tr>
<tr>
<td>A mathematics course</td>
<td>6–8</td>
</tr>
<tr>
<td>Two history courses or</td>
<td></td>
</tr>
<tr>
<td>One of these plus a course in economics, geography or sociology</td>
<td>6</td>
</tr>
<tr>
<td>A fine arts course in art, music or dramatic arts</td>
<td>2–3</td>
</tr>
<tr>
<td>Physical education activity courses</td>
<td>2</td>
</tr>
<tr>
<td>Courses in major per adviser</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Some courses above may be deferred to the second year, if patterned to enable work in major subject to begin.

**Second Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>101 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>112 American Government or</td>
<td>3</td>
</tr>
<tr>
<td>202 State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td>One sociology, geography or economics course</td>
<td></td>
</tr>
<tr>
<td>(if needed)</td>
<td></td>
</tr>
<tr>
<td>Physical education activity courses</td>
<td>2</td>
</tr>
<tr>
<td>Major, minor or elective courses</td>
<td></td>
</tr>
</tbody>
</table>

**Third Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>320 Human Growth and Development</td>
<td>4</td>
</tr>
<tr>
<td>(Prereq: 101 General Psychology)</td>
<td></td>
</tr>
<tr>
<td>326 School and Society</td>
<td>6</td>
</tr>
<tr>
<td>(Prereq: 320 Human Growth and Develop)</td>
<td></td>
</tr>
<tr>
<td>Methods course in major subject</td>
<td>2–3</td>
</tr>
<tr>
<td>A course in philosophy or religion</td>
<td>3</td>
</tr>
<tr>
<td>Major, minor or elective courses</td>
<td></td>
</tr>
</tbody>
</table>

**Fourth Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>492 Student Teaching</td>
<td>8</td>
</tr>
<tr>
<td>418 Seminar in Education</td>
<td>2</td>
</tr>
<tr>
<td>405 Basic Guidance Concepts and Processes</td>
<td></td>
</tr>
<tr>
<td>Major, minor or elective courses</td>
<td></td>
</tr>
</tbody>
</table>

**EXECUTIVE SECRETARY**

Administered by the Department of Administrative Services and Business Education

**Executive Secretary Minor (Non-Teaching)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>(non-business majors only)</td>
<td>21</td>
</tr>
<tr>
<td><strong>222 Office Simulation</strong></td>
<td>4</td>
</tr>
<tr>
<td><strong>226 Shorthand Dictation</strong></td>
<td>3</td>
</tr>
<tr>
<td>227 Shorthand Speedbuilding</td>
<td>3</td>
</tr>
<tr>
<td>240 Principles of Accounting</td>
<td>3</td>
</tr>
<tr>
<td>325 Shorthand Transcription</td>
<td>3</td>
</tr>
<tr>
<td>326 Secretarial Procedures</td>
<td>3</td>
</tr>
<tr>
<td>415 Records Administration</td>
<td>2</td>
</tr>
</tbody>
</table>

*Students having deficiencies in elementary typewriting may enroll in BED 120 Typewriting Techniques. Students having deficiencies in elementary shorthand may enroll in one of the beginning shorthand courses (BED 225 or BED 223). Students with proficiency equivalent to course requirements in BED 121, Typewriting Applications, or in one of the shorthand courses, may test out of those courses or have the course waived and a substitute course approved for their programs.

**SHOPPING CENTER MANAGEMENT**

Administered by the Marketing Department

(To be completed in conjunction with the Bachelor of Business Administration degree).

**Major in Shopping Center Management (24 semester hours)**

The undergraduate major in Shopping Center Management is designed to prepare students for careers in shopping center development and/or shopping center management organizations. The various positions in this field call for technical expertise in human relations, communications, information systems, real estate, financing and risk management, law, promotion and operations management. The proposed program incorporates these bodies of knowledge plus several decision-making techniques into a unique curriculum that will meet the needs of the burgeoning shopping center industry.

Students in the field of Shopping Center Management are required to complete the following courses in addition to the general requirements for the Bachelor of Business Administration degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required courses</td>
<td>24</td>
</tr>
<tr>
<td>210 Real Estate Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td>363 Retailing</td>
<td>3</td>
</tr>
<tr>
<td>369 Advertising</td>
<td>3</td>
</tr>
<tr>
<td>384 Personnel Administration</td>
<td>3</td>
</tr>
<tr>
<td>459 Property and Liability Insurance</td>
<td>3</td>
</tr>
<tr>
<td>310 Real Estate Finance</td>
<td>3</td>
</tr>
<tr>
<td>476 Shopping Center Seminar</td>
<td>3</td>
</tr>
<tr>
<td>401 Internship Program or approved elective</td>
<td>3</td>
</tr>
</tbody>
</table>

**SOCIAL SCIENCE**

**Major (36 semester hours)**

The social science major is intended primarily for students preparing to teach in junior high schools or middle schools, but may also be elected by persons on the degree only program. On teaching programs, the major should be accompanied by a minor in history, economics, geography, political science or sociology, or by one of the minors offered in the Department of English Language and Literature—preferably the minor in language and literature. For a student who chooses both the social science major and a history, economics, geography, political science or sociology minor, the minor field shall be excluded from the social science major, and the 6–12 semester hours thus released shall be distributed among the other four social science areas.

At least 36 semester hour, distributed as follows:
SOCIAL WORK CURRICULUM

Bachelor of Arts or Bachelor of Science Degree

Adviser Chairman, Leroy W. Watts
Social Work Program

This program is designed to prepare students for positions in social service requiring the bachelor’s degree and for graduate education in social work. Upon completion of the curricular requirements, including 73 semester hours of specified courses, the requirements of a major in social work and a minor in sociology will be fulfilled. The social work major is an inter-disciplinary major consisting of 33 hours of required social work courses plus six semester hours of psychology, three semester hours of economics and four semester hours of biological science. The minor is a special 24-hour sociology minor. The outline of the curriculum given below identifies the specific courses for the social work major by an asterisk (*) and for the sociology minor by two asterisks (**) and shows their distribution among the group requirements.

- 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. Usually this placement component is executed during the students’ senior year when they are in placement either fall and winter terms or winter and spring terms. It should be noted that the hours spent in the field are as follows: 16 hours/week for fall and winter terms; 32 hours/week during spring terms.

- Eligibility for field placement:

1. A 2.0 overall grade point at the time of applying for field placement is required (no probation).

2. Students must have completed all required social work courses through the 300 level before beginning field placement.

3. A field placement application must be obtained from the Social Work office, completed by the student and returned to that office by April if placement is desired fall/winter and by October for the following winter/spring terms.

The field coordinator will then attempt to obtain placements for eligible students.

4. Students enrolling for the first semester of field placement (Social Work 410) must take Social Work 408 concurrently. Students enrolling for the second term of field placement (Social Work 411) must take Social Work 409 concurrently.

5. Note on transportation: Agencies are located within a 50 mile radius of EMU. Students will need their own transportation. In a few cases car pools can be arranged with participants sharing expenses.

Semester Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>History</td>
<td>12</td>
</tr>
<tr>
<td>101 or 102 History of Western Civilization</td>
<td>3</td>
</tr>
<tr>
<td>123 Major Trends in U.S. History</td>
<td>3</td>
</tr>
<tr>
<td>103 History of Non-Western Civilization or 105 The World in the 20th Century</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>Economics</td>
<td>6</td>
</tr>
<tr>
<td>200 The American Economy or 201 Principles of Economics I</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>Geography</td>
<td>6</td>
</tr>
<tr>
<td>110 World Regions</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>Political Science</td>
<td>6</td>
</tr>
<tr>
<td>112 American Government or 202 State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>Sociology</td>
<td>6</td>
</tr>
<tr>
<td>105 Introductory Sociology</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

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 201 The Comparative Study of Religion for history credit on the social science major.

Students in the elementary, library science, or special education curriculums should see page 80 for an elementary social science group major or minor.

Group I Language

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

One additional laboratory science course from the biology, chemistry, geography, physics or psychology departments or one math course.

*One of the following:

321 Child Psychology
322 Psychology of Adolescence
360 Abnormal Psychology

Group III Social Sciences

One course in history
Either of the following:
112 American Government or
202 State and Local Government

*Either of the following:
201 Principles of Economics I or
200 The American Economy

**135 Introduction to Cultural Anthropology

**105 Introductory Sociology

**214 Racial and Cultural Minorities

**250 Elementary Social Statistics

**362 Complex Organizations

**404 Methods in Sociological Research

**Two of the following:
306 Urban Community
308 Social Psychology
310 Contemporary American Class Structure
312 Medical Sociology
406 Criminology or 407 Criminal Justice
450 The Family or 204 Marriage and the Family

*One of the following:
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 Labor Market  
*112 Introduction to Social Welfare Services  
*216 Social Work Services and Professional Roles  
*315 Theoretical Bases for Social Work Practice  
*317 Practice Preparation Lab and Community Service Experience  
*360 Seminar on Social Work Practice with Minorities  
*408 Social Work Practice I  
*409 Social Work Practice II  
410 Field Experience I  
*411 Field Experience II  
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 4  
Physical education activity courses 4  
Note: Two semester hours of military science may apply toward this requirement.  
Free electives 19–16  
Total 124  

Students completing the above curriculum have met the major and minor requirements for graduation. No outside minor is needed.  
The Social Work Program is accredited by the Council on Social Work Education.

Social Work Minor (20–22 semester hours)  
Non-Teaching  
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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>112 Introduction to Social Welfare Services</td>
<td>3</td>
</tr>
<tr>
<td>216 Social Work Services and Professional Roles</td>
<td>4</td>
</tr>
<tr>
<td>315 Theoretical Bases for Social Work Practice</td>
<td>3</td>
</tr>
<tr>
<td>317 Practice Preparation Lab and Community Service Experience</td>
<td>3</td>
</tr>
<tr>
<td>Social Work Electives</td>
<td>7–9</td>
</tr>
</tbody>
</table>

SOCIOLOGY

Adviser Chairman: Marcello Truzzi

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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>105 Introductory Sociology</td>
<td>3</td>
</tr>
<tr>
<td>135 Introduction to Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>250 Elementary Social Statistics</td>
<td>3</td>
</tr>
<tr>
<td>308 Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>403 Modern Sociological Theory</td>
<td>3</td>
</tr>
<tr>
<td>404 Methods in Social Research</td>
<td>3</td>
</tr>
<tr>
<td>405 Social Theory and Social Structure</td>
<td>3</td>
</tr>
<tr>
<td>One of the following</td>
<td>3</td>
</tr>
<tr>
<td>306 Urban Community</td>
<td></td>
</tr>
<tr>
<td>307 Industrial Sociology</td>
<td></td>
</tr>
<tr>
<td>310 Contemporary American Class Structure</td>
<td></td>
</tr>
<tr>
<td>362 Complex Organizations</td>
<td></td>
</tr>
</tbody>
</table>

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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>105 Introductory Sociology</td>
<td>3</td>
</tr>
<tr>
<td>135 Introduction to Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>Sociology courses at 300 level or above</td>
<td>8–9</td>
</tr>
</tbody>
</table>

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.

SPANISH

Administered by the Department of Foreign Languages

Major (30 semester hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>343 Spanish Composition and 344 Spanish Conversation</td>
<td>5</td>
</tr>
<tr>
<td>443 Advanced Spanish Composition and 444 Advanced Spanish Conversation</td>
<td>4</td>
</tr>
<tr>
<td>Additional courses in Spanish at the 300 level or above</td>
<td>12</td>
</tr>
</tbody>
</table>

Electives in Spanish at any level chosen in consultation with an adviser in the department 9

Students majoring in Spanish will also take 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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Minor in Spanish language:</td>
<td></td>
</tr>
<tr>
<td>343 Spanish Composition and 344 Spanish Conversation</td>
<td>5</td>
</tr>
<tr>
<td>Either of the following options:</td>
<td></td>
</tr>
<tr>
<td>1) 433 Advanced Spanish Composition and 444 Advanced Spanish Conversation</td>
<td>4</td>
</tr>
<tr>
<td>2) Additional courses in Spanish at the 300 level or above</td>
<td>6</td>
</tr>
</tbody>
</table>
Electives in Spanish at any level, chosen in consultation with an adviser in the department .......................... 9–11

II. Minor in Spanish literature:
Any two of the following courses:
341, 342, 351, 352 ................................. 6
Additional courses in Spanish at the 300 level or above. (Students on teaching curriculums should include SPN 343-344.) .......................... 5–6
Electives in Spanish at any level, chosen in consultation with an adviser in the department ........ 8–9

III. Minor in Spanish culture:
301 Spanish Life and Customs and
302 Culture and Civilization of Latin America .......................... 6
Additional courses in Spanish at the 300 level or above. (Students on teaching curriculums should include SPN 343-344.) .......................... 5–6
Electives in Spanish at any level, chosen in consultation with an adviser in the department ........ 8–9

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

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 35. 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 .................................. 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 103, Introduction to Language (3) or substitute course approved by adviser) 207 Introduction to Children's Literature ........... 3

Group II Science and Mathematics .................... 15
101 Functional Mathematics ......................... 3
One laboratory science course ........................ 4
(Hearing Impaired majors must take Physics 210 Musical Acoustics to satisfy lab science requirement.)
*101 General Psychology ........................... 3
*206 Mental Hygiene ................................. 2
*360 Abnormal Psychology ........................... 3

Group III Social Sciences ............................ 12
One history course .................................. 3
105 Introductory Sociology ........................... 3
Either of the following:
112 American Government or
202 State and Local Government ................... 3
*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 arts, music or dramatic arts (automatically met by Group V courses below).

Group IV Education ................................ 30–34
*251 Education of Exceptional Children ....... 2
303 Principles of Teaching ......................................... 3
310 Teaching of Reading ......................................... 3
320 Human Growth and Development .............. 4
**** 344 Audio-Visual Methods in Teaching ........ 2
381 Teaching Math K–6 ......................................... 3
*390 Measurement and Diagnosis in Special Education .......................... 3
** 418 Seminar in Education .......................... 2
*** 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.

Group V Fine Arts .................................. 5
101 Introduction to Art .................................. 3
104 Elements of Music .................................. 2

Group VI Practical Arts .............................. 5
253 Industrial Technology and the Elementary Teacher ......................................... 3
*354 Experiences in Technology for Children .... 2

Group VII Physical Education and Health ........ 6
*320 Health Education in Public Schools ........ 2
Physical education activity courses .................. 4
Two semester hours of military science may apply toward this requirement. Courses must include PEC 157 Physical Education for the Classroom Teacher.

Electives ............................................ (to complete 124 hours) 31–26
Total .................................................. 124

Major Concentration

A. Hearing Impaired ................................ 26

*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.
**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.
### CURRICULUM FOR TEACHERS OF THE SPEECH AND LANGUAGE IMPAIRED

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>228 Survey of Education and Guidance of the Hearing Impaired</td>
<td>2</td>
</tr>
<tr>
<td>326 Introductory Practicum with the Hearing Impaired</td>
<td>1</td>
</tr>
<tr>
<td>327 Introductory Practicum with the Hearing Impaired</td>
<td>1</td>
</tr>
<tr>
<td>336 Anatomy and Physiology of the Speech and Hearing Mechanisms</td>
<td>3</td>
</tr>
<tr>
<td>378 Introduction to Audiology</td>
<td>2</td>
</tr>
<tr>
<td>391 Language for the Hearing Impaired</td>
<td>4</td>
</tr>
<tr>
<td>394 Auditory Training and Speechreading for the Hearing Impaired</td>
<td>3</td>
</tr>
<tr>
<td>395 Speech for the Hearing Impaired I</td>
<td>2</td>
</tr>
<tr>
<td>396 Speech for the Hearing Impaired II</td>
<td>2</td>
</tr>
<tr>
<td>397 School Subjects for the Hearing Impaired</td>
<td>4</td>
</tr>
<tr>
<td>442 Hearing Impaired Seminar</td>
<td>2</td>
</tr>
<tr>
<td><strong>B. Emotionally Impaired</strong></td>
<td>17</td>
</tr>
<tr>
<td>240 Pre-Clinical Training in Special Education</td>
<td>2</td>
</tr>
<tr>
<td>241 Introduction to Speech Pathology</td>
<td>2</td>
</tr>
<tr>
<td>301 Emotionally Impaired Children</td>
<td>4</td>
</tr>
<tr>
<td>354 Juvenile Delinquency (or approved substitute)</td>
<td>3</td>
</tr>
<tr>
<td>401 Methods and Curriculum for the Emotionally Impaired</td>
<td>2</td>
</tr>
<tr>
<td>402 Education and Organization of Programs for the Emotionally Impaired</td>
<td>2</td>
</tr>
<tr>
<td>440 Seminar in Emotionally Impaired</td>
<td>2</td>
</tr>
<tr>
<td><strong>C. Mentally Impaired</strong></td>
<td>18–19</td>
</tr>
<tr>
<td>240 Pre-Clinical Experience</td>
<td>2</td>
</tr>
<tr>
<td>241 Introduction to Speech Pathology</td>
<td>2</td>
</tr>
<tr>
<td>350 Mental Deficiency</td>
<td>4</td>
</tr>
<tr>
<td>355 Educational Programs and Classroom Management for Exceptional Child</td>
<td>4-5</td>
</tr>
<tr>
<td>356 The Trainable and Severely Retarded Child</td>
<td>2</td>
</tr>
<tr>
<td>357 Elementary Education of Mentally Impaired</td>
<td>2</td>
</tr>
<tr>
<td>358 Secondary Education of Mentally Impaired</td>
<td>2</td>
</tr>
<tr>
<td>444 Seminar in Mentally Impaired</td>
<td>2</td>
</tr>
<tr>
<td>468 Learning Disabilities</td>
<td>2</td>
</tr>
<tr>
<td><strong>D. Physically and Otherwise Health Impaired</strong></td>
<td>21</td>
</tr>
<tr>
<td>240 Pre-Clinical Training in Special Education</td>
<td>2</td>
</tr>
<tr>
<td>241 Introduction to Speech Pathology</td>
<td>2</td>
</tr>
<tr>
<td>310 Developmental Aspects of Teaching Physically Impaired Children (laboratory required)</td>
<td>5</td>
</tr>
<tr>
<td>312 Applied Aspects of Teaching Physically Impaired Children (lab required)</td>
<td>6</td>
</tr>
<tr>
<td>350 Mental Deficiency</td>
<td>2</td>
</tr>
<tr>
<td>446 Seminar in Physically Impaired</td>
<td>2</td>
</tr>
<tr>
<td>468 Children with Learning Disabilities</td>
<td>2</td>
</tr>
<tr>
<td><strong>E. Visually Impaired</strong></td>
<td>19</td>
</tr>
<tr>
<td>241 Introduction to Speech Pathology</td>
<td>2</td>
</tr>
<tr>
<td>364 Methods of Teaching the Blind</td>
<td>3</td>
</tr>
<tr>
<td>365 Braille</td>
<td>2</td>
</tr>
<tr>
<td>366 Hygiene and Anatomy of the Eye</td>
<td>2</td>
</tr>
<tr>
<td>367 Education of Children with Impaired Vision</td>
<td>2</td>
</tr>
<tr>
<td>368 Mobility Training for the Visually Impaired</td>
<td>2</td>
</tr>
<tr>
<td>369 Community Considerations for the Visually Impaired</td>
<td>3</td>
</tr>
<tr>
<td>450 Seminar in Visually Impaired</td>
<td>2</td>
</tr>
</tbody>
</table>

(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 79 for elementary education are also satisfactory for special education with elementary certification. 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 SLE 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 know 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 as set down 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.

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**CURRICULUM FOR TEACHERS OF THE SPEECH AND LANGUAGE IMPAIRED**

- Bachelor of Science Degree
- Master of Arts Degree

**Elementary Provisional Certificate**

Adviser Chairman, Norman J. Niesen
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 Asso-
Master of Arts Degree.

specified below. These particular curriculum, major, or minor requirements in Basic Studies and undergraduate major and minor requirements in Basic Studies course requirements by completing 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 35. 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.

Group I Language

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 103 Introduction to Language

207 Introduction to Children’s Literature

11–12

Group II Science and Mathematics

PHY 210 Musical Acoustics (lab required)

101 General Psychology

206 Mental Hygiene

360 Abnormal Psychology

12

Group III Social Sciences

One history course

105 Introductory Sociology

Either of the following:

112 American Government or

202 State and Local Government

202 Social Problems

12

Group IV Education

251 Education of Exceptional Children

303 Principles of Teaching

310 Teaching of Reading

320 Human Growth and Development

344 Audio Visual Methods in Teaching

390 Measurement and Diagnosis in Special Education (or approved substitute)

495 Student Teaching in the Regular Classroom

20

Group V Fine Arts

101 Introduction to Art

104 Elements of Music

5

Group VII Physical Education and Health

Physical education activity courses

4

Note: Two semester hours of military science may be applied toward this requirement. Courses must include PEC 157 Physical Education for the Classroom Teacher.

Major Concentration

243 Applied Phonetics

336 Anatomy and Physiology of the Speech and Hearing Mechanism (lab required)

337 Language Acquisition

358 Speech Pathology

359 Speech Evaluation

340 Speech Pathology Methods I

341 Directed Observation in Speech Pathology

342 Speech Correction Methods II

343 Clinical Practice in Speech Pathology I

344 Clinical Practice in Speech Pathology II

378 Introduction to Audiology

394 Auditory Training and Speech Reading for the Hearing Impaired

416 Experimental Phonetics I

452 Voice

454 Stuttering

33

Electives (Optional) 0–4

241 Introduction to Speech Pathology

245 Clinical Practice in Speech Pathology III

12

Electives (to complete 124 hours) 14–13

Total 124

Master of Arts Sequence

Area of Concentration

Required Courses: 24–26

SLI 550 Articulation

SLI 568 Diagnostic Methods in Speech Pathology

SLI 578 Audiometric Testing

SLI 594 Public School Internship

SLI 596 Seminar in Public School Internship

SLI 597 Independent Study

SLI 620 Environmental Interventions

Electives in Speech Pathology/Audiology 4–6

Cognates:

EDP 592 Research Techniques

Electives outside Speech Path/Aud.

24

2

2

4

2

3

2

1

3

2–6

2

8–12

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.

During the senior year and prior to full acceptance into the graduate program, students may take the National Speech and Hearing Examination. See the graduate adviser for details.
SPEECH

Administered by the Speech and Dramatic 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

<table>
<thead>
<tr>
<th>MAJOR</th>
<th>MINOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Total Credit Requirements</td>
<td>30 hours</td>
</tr>
<tr>
<td>B. Distribution of Credit Requirements</td>
<td></td>
</tr>
<tr>
<td>1. Foundation Courses</td>
<td>5–6 hours</td>
</tr>
<tr>
<td>2. Application Courses</td>
<td>9 hours</td>
</tr>
<tr>
<td>3. Theory Courses</td>
<td>9 hours</td>
</tr>
<tr>
<td>4. Electives</td>
<td>6–7 hours</td>
</tr>
</tbody>
</table>

II. Program of Study

A. Foundation Courses

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 121 Fundamentals of Speech</td>
</tr>
<tr>
<td>2. 124 Fundamentals of Speech</td>
</tr>
<tr>
<td>3. 224 Public Speaking</td>
</tr>
<tr>
<td>4. 227 Interpersonal Communication</td>
</tr>
</tbody>
</table>

B. Application Courses

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 166-466 Forensics</td>
</tr>
<tr>
<td>2. 321 Parliamentary Procedure</td>
</tr>
<tr>
<td>3. 350 Persuasion</td>
</tr>
<tr>
<td>4. 356 Argumentation and Debate</td>
</tr>
<tr>
<td>5. 359 Small Group Communication</td>
</tr>
</tbody>
</table>

C. Theory and Research Courses

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 440 Survey of Public Address</td>
</tr>
<tr>
<td>2. 460 Theory of Speech Criticism</td>
</tr>
<tr>
<td>3. 475 Research in Speech Communication</td>
</tr>
<tr>
<td>4. 485 Theories of Speech Communication</td>
</tr>
</tbody>
</table>

D. Elective Courses

Electives may be chosen from courses in the Department of Speech and Dramatic 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

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 132 Interpretative Reading</td>
</tr>
<tr>
<td>2. one of the following: 203, 310, 314; 324 and either 411 or 414 and one semester hour of credit in an interpretative reading activity course.</td>
</tr>
</tbody>
</table>

B. Broadcasting Concentration

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 140 and 141; one of the following: 240, 245, 331, 332, 333, 343, 344; and one of the following: 431, 432, 445, 446, 447.</td>
</tr>
</tbody>
</table>

Speech Minor (For those on elementary, library science and special education curriculums only)—(20 semester hours)

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 121 Fundamentals of Speech or 124 Fundamentals of Speech</td>
</tr>
<tr>
<td>2. 132 Interpretative Reading</td>
</tr>
<tr>
<td>3. 205 Voice and Articulation</td>
</tr>
<tr>
<td>4. 301 Speech Science</td>
</tr>
<tr>
<td>5. 400 Phonetics and Dialects of Spoken English</td>
</tr>
</tbody>
</table>
One of the following: ........................................ 3
135 Play Production
222 Drama and Play in Human Experience
234 Stagecraft
323 Improvisation
One of the following: ........................................ 3
224 Public Speaking
350 Persuasion
356 Argumentation and Debate
359 Small Group Communication
Electives from the above courses or the following: .......................... 9-8
165 Broadcasting (TV)
166 Forensics
167 Theatre Practice
168 Interpretation
169 Broadcasting (Radio)
140 Introduction to Broadcasting and Film
322 Theatre for Children
422 Independent Study in Drama for the Young
446 Broadcasting in Society

Speech and Dramatic Arts Major (30 semester hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>121</td>
<td>Fundamentals of Speech or 140 Introduction to</td>
<td>2-3</td>
</tr>
<tr>
<td></td>
<td>Broadcasting and Film</td>
<td></td>
</tr>
<tr>
<td>146</td>
<td>Interpreting Reading</td>
<td>3</td>
</tr>
<tr>
<td>100</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>350</td>
<td>Persuasion</td>
<td>3</td>
</tr>
<tr>
<td>135</td>
<td>Play Production</td>
<td>3</td>
</tr>
<tr>
<td>205</td>
<td>Voice and Articulation</td>
<td>3</td>
</tr>
<tr>
<td>356</td>
<td>Argumentation and Debate or 359 Small Group</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Communication</td>
<td></td>
</tr>
<tr>
<td>Electives in</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dramatic arts</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Electives in</td>
<td></td>
<td></td>
</tr>
<tr>
<td>speech or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dramatic arts</td>
<td></td>
<td>4-3</td>
</tr>
</tbody>
</table>

Speech and Dramatic Arts Minor (20 semester hours)

Courses starred above, including both 359 Small Group Communication and 356 Argumentation and Debate.

WOMEN'S STUDIES

Minor (Non-Teaching)

Coordinator, Nadean Bishop

Department of English Language and Literature

The Women's Studies Program is one of the innovative areas of academic scholarship designed to enlarge the perspective of the students 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. Students may also take any of these courses separately. 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 344 Women in Literature .................................................... 3
SOC 444 Sociology of Sex Roles .................................................. 3
Electives ................................................................................. 8-5
ADS 205 Women in Business ....................................................... 3

WRITING

The Minor in Writing is offered by the Department of English Language and Literature. See Dr. Milton P. Foster, 612A Pray-Harrold, for advice.

Minor in Writing (21-24 semester hours)

Semester hours

A. Required Courses ................................................................. 12
121 English Composition or 119 Basic Composition
325 Expository Writing
335 Imaginative Writing
422 Writer's Workshop

B. Electives chosen from the following: ................................ 9-12
215 Journalism
225 Intermediate English Composition
306 Feature, Interpretive and Editorial Writing
422 Writer's Workshop (May be repeated)
503 Rhetoric and Advanced Composition (with permission)
344 Broadcast Continuity Writing (Speech and Drama)
385 Dramatic Composition (Speech and Drama)
386 Dramatic Writing (Speech and Drama)
One of the following may be counted toward this minor as an elective:
301 An Introduction to the English Language
302 Modern English Syntax
321 The History of the English Language

ZOOLEGY

Administered by the 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. Contact Biology 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.
COLLEGE OF ARTS AND SCIENCES

COURSE DESCRIPTIONS

ACTING DEAN: Clark G. Spike

DEPARTMENTS AND PROGRAMS

Afro-American Studies
Art
Biology
Chemistry
Economics
English Language and Literature
Foreign Languages and Literatures
Geography and Geology
History and Philosophy
Humanities
Mathematics
Music
Physics and Astronomy
Political Science
Psychology
Sociology
Speech and Dramatic Arts
Women's Studies.
LIBERAL ARTS AND PROFESSIONAL CURRICULUMS

The University offers liberal arts and professional curriculums, some four-year and some shorter 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. Applied Science
7. Arts Management
8. Criminal Justice and Criminology
9. Pre-Architecture
10. Pre-Dentistry
11. Pre-Engineering
12. Pre-Forestry
13. Pre-Law
14. Pre-Medicine and Osteopathy
15. Pre-Mortuary Science
16. Pre-Pharmacy
17. Pre-Religious Careers

These programs and the various majors and minors offered or administered by the departments in the College of Liberal Arts are described in the alphabetically arranged Programs of Study section earlier in this catalog. The Bachelor of Science and the Bachelor of Arts Degree programs are described under the section called Degrees, Graduation Requirements and Certificates on page 34, along with the basic studies requirements for graduation.

*See note on page 181 concerning possible delay in implementation plans for this new program.

DEPARTMENTS

AFRO-AMERICAN STUDIES

Acting Director: Anthony Ingram

The struggle of black people for liberation, equality, and inclusion in the mainstream of American life has resulted (particularly during the last decade) in an increased awareness at all societal levels of the many obstacles faced by this large segment of the American people. During the latter part of the 1960s, the struggle took the direction of a new “militancy” which, among other concerns, demanded that major institutions begin to address themselves to the issues of racism, economic needs of black communities, and recognition of the contributions and culture of black Americans.

In an effort to prepare students for living and working in a rapidly changing society, Eastern Michigan University offers courses which provide students the opportunities to develop insights and understanding of the “black experience” in America. More importantly, students majoring in social science disciplines who have not been exposed academically to issues and problems faced by a large segment of our society may well find themselves ill-equipped when embarking on their professional careers, particularly if they choose to live and/or work in a large urban area.

In addition, due to a rapidly increased enrollment (10,200 students in 1965 and over 18,000 students at present), Eastern Michigan University has a racially and ethnically diversified student population, which necessitated the development of curriculums reflecting that pluralism.

Goals of Afro-American Studies

1. To develop attitudes that will improve relationships among people generally, and individuals and groups who differ racially and/or ethnically.
2. To sensitize students to the issues and problems black Americans face within society.
3. To develop an understanding and commitment to the educational, social, political and economic needs of black communities.
4. To develop on the part of students an appreciation of the culture, life styles, and contribution of black Americans.
5. To assist students in developing a more positive ethnic identity.
6. To assist students in the development of their leadership skills.
7. To assist students, who are so oriented, in the development of research skills that may contribute to the expansion of information in the field.
8. To assist students in the development of skills that may contribute to the quality of life in urban areas.

General Curricular Requirements

The program offers students a minor in Afro-American Studies and an individual concentration. 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. The minor is described on page 47.
COURSES

101 Afro-American Studies: An Introduction
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.

201 Afro-American Studies II.
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.

202 Black Social Movements 1880-1890s.
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.

203 Blacks in the City.
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.

301 Afro-American Contemporary Issues Seminar.
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: 201 Afro-American Studies II.

304 The African Diaspora and the Black Experience.
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.

396 Special Topics
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.

498 Independent Study.
Independent study of a selected topic under the supervision of the staff. Possible approaches include library research, field research and participant-observer experiences.
Prereq: 301 Afro-American Contemporary Issues Seminar, junior standing, and permission of the department.

ART

Department Head: Kingsley M. Calkins
Associate Professors: Marvin C. Anderson, Barry Avedon, Igor Beginin, Jane M. Dart, Jan Michael Field, Lawrence L. Freeman, Elaine C. Godfrey, Frederick C. Hunter, Judy Loeb, Roger R. Mayer, Doris A. Smith, Jay R. Yager, Michael Zahratka

The Art Department administers the following programs beginning on page 51 in the Programs of Study section: Bachelor of Fine Arts Degree, 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 78 and in the arts management program, page 53.

GRADUATE STUDY

The Art Department offers graduate work leading to the master's degree in art education and in fine arts. For descriptions of graduate courses and programs in the Art Department please consult the Graduate Catalog.

COURSES

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.

101 Introduction to Art
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.

107 Art History Survey I.
A survey of the development of the visual arts from cave art to the early Renaissance.

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

122 Two-Dimensional Design.
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.

123 Drawing I.
A beginning drawing course for students who plan to specialize in art. A variety of media and approaches help the student to achieve the control necessary in drawing. Individual problems are assigned and group criticism is frequent. Art majors and minors only.

124 Drawing II.
Emphasis is on study of composition as an extension of the
principles explored in Drawing I. Imaginative organization is stressed. Extensive experimentation with various media. Subjects such as the human figure are introduced as drawing problems.

Prereq: 123 Drawing I.

200 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. Does not count toward art major.

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: 123 Drawing I, 124 Drawing II or permission of the department.

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: 107 Art History Survey I, 108 Art History Survey II.

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

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.

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.
Prereq: 122 Two-Dimensional Design or permission of the department.

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

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.

301 Graphic Design. Three sem hours
(formerly Commercial Design)
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.

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

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

304 Photographic Design. Three sem hours
A course to introduce the student to photography as an art medium. Students will be given a variety of technical experiences in photography with the aim of developing an appreciation and knowledge of the aesthetic potential of photography. Student must supply his own camera equipment.
Prereq: 122 Two-Dimensional Design and 123 Drawing I. Art majors only.

305 Printmaking. Three sem hours
(formerly Graphics)
Acquaintance with graphic techniques; woodcut and lithography.
Prereq: Junior standing and 210 Life Drawing. Art majors only.

306 Printmaking. Three sem hours
(formerly Graphics)
Advanced graphic techniques with emphasis on development of individual style through experimentation; etching and silk screen.
Prereq: 303 Printmaking. Art majors only.

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: Junior art major or minor or permission of the department.

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: 307 Ceramics. Art majors only.

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

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

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

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

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

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: 231 Three-Dimensional Design or permission of the department. Art majors only.

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

322 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: 321 Jewelry. Art majors only.

323 Advanced Photography. Three sem hours
Advanced work in photography as it relates to the fine arts course—involves group and individual projects with group discussion; mastery of advanced technical skills in accord with personal goals. Student needs own camera and, at this time, own darkroom facilities.
Prereq: Art major and 304 Photographic Design, or permission.

324 Design and Development of Public Works of Art Six 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.

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: 231 Three-Dimensional Design. Art majors only.

334 Women in Art. Three sem hours
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: 108 Art History Survey II or permission of instructor.

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 limners to Thomas Hart Benton, and important movements and schools will be discussed. Field trips may be required.
Prereq: 210 Life Drawing or permission of instructor.

340 History of Ancient Art. Three sem hours
(formerly 212)
A survey of the arts of the ancient Near East and of Western art through the Roman Empire.
Prereq: 107 Art History Survey I or permission of instructor.

341 History of Renaissance Art Three sem hours
(formerly 213)
A history of art from the Proto-Renaissance (about 1250 A.D.) through the period of mannerism (1600).
Prereq: 107 Art History Survey I or 108 Art History Survey II.

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. Art majors only.
Prereq: 235 Textiles

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. Art majors only.
Prereq: 235 Textiles

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: Graphic Design. Art majors only.

405 Printmaking. Three sem hours
(formerly Graphics)
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: 306 Printmaking. Art majors only.

406 Printmaking. Three sem hours
(formerly Graphics)
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: 405 Printmaking. Art majors only.

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: 308 Ceramics. Art majors only.

408 Ceramics. Three sem hours
Summation of the undergraduate ceramics program; emphasis on individual style, production techniques, studio management, exhibition programs.
Prereq: 407 Ceramics. Art majors only.

409 Seminar: Issues in Photography. Three sem hours
Readings and group discussions on central issues in photography, with emphasis on the literature of photographic aesthetics and criticism; examination of the work of influential photographers of diverse sensibilities.
Prereq: Familiarity with basic camera and darkroom technique and art major, or permission of the department.

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: 310 Sculpture or permission of the department. Art majors only.
411 Sculpture. Three sem hours
Advanced sculpture problems, including steel and open-form construction; intensive study of contemporary methods and techniques of sculpture.
Prereq: 311 Sculpture or permission of the department. Art majors only.

412 Sculpture. Three sem hours
Advanced sculpture problems; development of individual style in three-dimensional form.
Prereq: 411 Sculpture. Art majors only.

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: 313 Painting. Art majors only.

414 Painting—Watercolor I. Two sem hours
Further development of painting skills and aesthetic understanding of the two-dimensional surface complex. Emphasis on development of individual style.
Prereq: 314 Painting. Art majors only.

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.

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.

419 Life Drawing. Three sem hours
The study of the human form as part of the development of a personal style in art.
Prereq: 316 Life Drawing. Art majors only.

420 History of Primitive Art. Three sem hours
A survey of art forms in Africa, North and South America and Oceania.

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.

423 Painting—Watercolor II. Two sem hours
Further development of individual style in watercolor.
Prereq: 414 Painting—Watercolor I. Art majors only.

424 Painting—Watercolor III. Two sem hours
Further development of individual style in watercolor.
Prereq: 423 Painting—Watercolor II. Art majors only.

425 Painting. Three sem hours
Further development of individual painting style.
Prereq: 413 Painting. Art majors only.

426 Medieval Art History. Three sem hours
The development of medieval art from the Early Christian through the Gothic periods.
Prereq: 107 Art History Survey I or 108 Art History Survey II or permission of the department.

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

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: 216 History of Contemporary Art I. Art majors only.

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

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: 331 Multi-Media Workshop. Art majors only.

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: 210 Life Drawing. Art majors only.

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: 122 Two-Dimensional Design. Art majors only.

440 History of Contemporary Art II. Three sem hours
(Formerly 217)
A continuation of 216 History of Contemporary Art I, from 1940 to the present with an intense concentration on recent developments in art.
Prereq: 216 History of Contemporary Art I.

441 Studies in Clay and Glazes. Three sem hours
This course will attempt an investigation into the aspects of low temperature (earthenware, lustres, china paints, raku, lead, and borax and frilled glazes and slips), middle range temperatures in gas and electric kilns, porcelains and stone-wares at cone 8 and cone 10.
Prereq: 407 Ceramics or above.

455 Textiles. Three sem hours
Advanced problems in fiber structure and fabric processes. Emphasis on innovative development of images. Art majors only.
Prereq: 355 Textiles or 356 Textiles.

497 Directed Studio Problems. One sem hour
Advanced study on an individual basis; restricted to juniors and seniors with permission of the department.

498 Directed Studio Problems. Two 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.
BIOLOGY

Department Head: Herbert H. Caswell, Jr.


Associate Professors: Edith M. Hurst, Dennis C. Jackson, Frank L. Sinclair, Elizabeth L. Waffle.

Assistant Professors: Howard D. Booth, Paul W. Mileske, P. George Simone, William D. Sperling, Suzanne J. Stevens, Glenn K. Walker

The Biology Department offers a major in biology, with concentrations in aquatic biology, community college biology teaching, general biology, microbiology, and physiology, as described on page 56; minors in biology, botany (page 57), and zoology (page 135); and participates in the minor in conservation resource use (page 64).

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-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 102, Hover Building, 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 (with 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.

COURSES

105 Biology and the Human Species

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 221 General Botany or 222 General Zoology or 106 Orientation to Biology.) Note: Two of the four hours for 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 221 General Botany or 222 General Zoology.

106 Orientation to Biology

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 105 Biology and the Human Species.

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: 105 Biology and the Human Species or equivalent, or permission of the department. Not open to students having credit in 221 General Botany or 222 General Zoology except by permission of the department.

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: 105 Biology and the Human Species or equivalent.

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.

232 Nature Interpretation

Three sem hours

Combines intensive field and museum work in natural history with practical training and experience in interpreting natural objects and settings to individuals and groups. Prereq: Previous field work in natural history and course work in biology essential.

301 Genetics

Three sem hours

A lecture course emphasizing the basic principles of inheritance with their application to plants and animals, including man. Prereq: 221 General Botany or 222 General Zoology or equivalent.

302 Genetics Lab

Two sem hours

A laboratory course designed to accompany or follow 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: 301 Genetics previously or concurrently.

320 General 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: 221 General Botany, 222 General Zoology, 131 General Chemistry I. Organic chemistry is recommended.

333 Principles of Immunology

Two sem hours

A lecture and demonstration course on the basic principles
of immunobiology including antigen-antibody reactions; immunoglobulin production; cellular immunity; hypersensitivity.

Prereq: BOT 328 Introduction to Microbiology or BOT 331 General Microbiology.

334 Immunohematology/Urinalysis. Two sem hours
A lecture and laboratory course dealing mainly with the principles of immunohematology and including a brief introduction to urinalysis.
Prereq: ZOO 201/202 Anatomy and Physiology or ZOO 222 General Zoology and ZOO 270 Human Physiology; BIO 333 Principles of Immunology

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.

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: ZOO 222 General Zoology and 221 General Botany, and departmental permission. Not open to students on academic probation.

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: 222 General Zoology and 221 General Botany, and departmental permission. Not open to students on academic probation.

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: 221 General Botany, 222 General Zoology, 301 Genetics. 230 Historical Geology desirable.

410 Limnology. Three sem hours
A lecture, laboratory and field course dealing with physicochemical and biological interrelationships in lakes and streams.
Prereq: 221 General Botany, 222 General Zoology and one taxonomic field course or permission of the department.

411 Limnological Methods. Two sem hours
A field and laboratory course covering techniques for sampling aquatic populations and monitoring productivity and physical-chemical parameters. Introduces statistical treatment of data.
Prereq: 410 Limnology and department permission.

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.

420 Ecology. Three sem hours
A laboratory and field course dealing with the interrelationships of plant and animal populations and their physical environment. Biological principles involved in terrestrial adaptations will be stressed. Individual student problems will be required.
Prereq: 221 General Botany, 222 General Zoology and one taxonomic field course or permission of the department.

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: 301 Genetics.

429 Cell Biology. Three sem hours
(formerly 329 General Cytology)
A lecture course covering the structure and function of the nuclear and cytoplasmic components of the cell.
Prereq: 221 General Botany, 222 General Zoology and 270 Organic Chemistry, and a course in Physiology as prerequisite or corequisite.

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 biogeo-chemical recycling of matter. Includes both laboratory and field exercises.
Prereq: 221 General Botany or 222 General Zoology, 331 General Microbiology, and 330 General Microbiology Laboratory.

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.

491 Special Problems in Biology. One sem hour

492 Special Problems in Biology. Two sem hours

493 Special Problems in Biology. 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. Open only to majors and minors in the department. May be elected more than once, after resubmission and approval.

494 Practicum in Biology. One sem hour

495 Practicum in Biology. Two sem hours

496 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.

Botany

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.
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.

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: 106 Orientation to Biology. A student with exceptionally good high school biology preparation may request departmental permission to take 106 concurrently with either 221 General Botany or 222 General Zoology. Cannot be taken concurrently with 222 General Zoology except by approval of the department.

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: 221 General Botany.

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: 221 General Botany.

310 Plant Physiology. Three sem hours
Deals with major plant functions presented by lecture, demonstration and experimentation in laboratory and in greenhouse.
Prereq: 221 General Botany, 270 Organic Chemistry or equivalent, and 320 General Physiology.

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: 221 General Botany.

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: 105 Bio. Science and 120 Fundamentals of Chemistry, or 201 Human Anatomy and Physiology I and 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.

330 General Microbiology Laboratory. Two sem hours
An introduction to the techniques of isolating, cultivating and identifying bacteria and other microbes. Includes experiments on physiological, serological and pathological properties and physical, chemical and biological effect on growth and death of microbes.
Prereq: Must be accompanied or preceded by 331 General Microbiology, or preceded by 328 Introductory Microbiology.

331 General Microbiology. Three sem hours
A lecture course on the nature and biology of bacteria and other microbes (metabolism, genetics, growth and death); their ecological relationship in natural and controlled environments, and the interactions of pathogenic microorganisms and their animal, human and plant hosts.
Prereq: 221 General Botany or 222 General Zoology or 270 Human Physiology and 270 Organic Chemistry. 351, 352 Biochemistry desirable. Not open to those who take 328 Introductory Microbiology.

332 Clinical Microbiology. Three sem hours
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: 328 Introductory Microbiology or 331 General Microbiology and 330 General Microbiology Laboratory and 270 Organic Chemistry.

345 Medical Mycology. Four sem hours
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. 221 General Botany and 304 Mycology are recommended.

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: 221 General Botany or 205 Field Biology.

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 221 General Botany.

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 221 General Botany. 430 Plant Morphology of Algae and Fungi recommended but not essential.

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: 331 General Microbiology, 330 General Microbiology Laboratory, 270 Organic Chemistry; 351 and 352 Biochemistry desirable.

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: 328 Introductory Microbiology or 331 General Microbiology and 330 General Microbiology Laboratory.
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: 221 General Botany.

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: 221 General Botany or equivalent.

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: 451 Freshwater Algae or department permission.

Zoology

101 Functions of the Human Body. Three sem hours
A lecture-demonstration course on the basic cell, organ and system functions of the normal human body with some consideration of common abnormalities.

200 Anatomy for Occupational Therapy Students. Five sem hours
A lecture, demonstration and laboratory course on gross anatomy of the human body with emphasis on the extremities.
Prereq: 105 Biology and the Human Species.

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: 120 Fundamentals of Chemistry. Credit on Nursing and Biology Programs counts only if 201 and 202 are taken consecutively.

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: 120 Fundamentals of Chemistry and 201 Human Anatomy and Physiology I.

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: 106 Orientation to Biology. A student with exceptionally good high school biology preparation may request departmental permission to take 106 concurrently with either 221 General Botany or 222 General Zoology. Cannot be taken concurrently with 221 General Botany except by approval of the department.

270 Human Physiology. Three sem hours
A study of the functioning of the human body. Lecture, laboratory and demonstration.
Prereq: 105 Biological Science, 200 Anatomy for Occupational Therapy Students (or equivalent). Not open to biology majors, but can be taken on a biology minor in which case 222 General Zoology is prereq. May not be taken for credit in addition to 327 Vertebrate Physiology.

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: 222 General Zoology.

305 Neuroanatomy. Three sem hours
A lecture-laboratory course concerned with the study of the human nervous system; lesions and resulting disabilities.
Prereq: 200 Anatomy for Occupational Therapy Students or 222 General Zoology and permission of the Department.

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: 105 Biology and the Human Species or 106 Orientation to Biology or equivalent.

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: 222 General Zoology.

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: 222 General Zoology.

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: 222 General Zoology.

327 Vertebrate Physiology. Three sem hours
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: 222 General Zoology, 320 General Physiology, 270 Organic Chemistry (minimum) or permission of department. Physics is desirable.
360 Parasitology. Three sem hours  
A survey of animal parasites which affect man and his environment. Emphasis is on the zoological inter-relationships. Lectures and laboratory.  
Prereq: 222 General Zoology.

404 Mammalian Histology. Three sem hours  
A lecture/laboratory course dealing with the structure and properties of mammalian organs and their component tissues.  
Prereq: 222 General Zoology.

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: 222 General Zoology or permission of the department.

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: 222 General Zoology or equivalent.

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: 222 General Zoology or permission of the department.

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: 222 General Zoology.

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 based upon a general understanding of physiology to compare the ways different invertebrates 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: 222 General Zoology, 270 Organic Chemistry, 320 General Physiology. 430 Invertebrate Zoology is desirable but not required.

460 Economic Zoology. Two sem hours  
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.

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: 222 General Zoology.

482 Aquatic Entomology. Three sem hours  
The study of aquatic insect families and some common genera; 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: 222 General Zoology. 421 Entomology is suggested.

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: 222 General Zoology and either 310 Natural History of Vertebrates or 420 Ecology or 324 Comparative Anatomy of Vertebrates.

Elementary Science  
(See required courses for elementary curriculums on page 76).

203 Science for the Elementary Teacher. Three sem hours  
Important biological concepts, especially relating to the inter-relationships 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.

205 Field Biology.  
(See Biology).

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 203 Science for the Elementary Teacher.

OFF-CAMPUS PROGRAMS

COURSES IN 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.

428 Tropical Ecology. Three sem hours  
A study of several important biotic communities of the trop-
ics. 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.

491 Special Problems in Biology. One sem hour

COOPERATIVE FIELD COURSES
AT HIGGINS LAKE

The courses listed below 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 for the week between the end of the spring semester and the start of the summer session. 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 Division of Field Services, Central Michigan University, Mt. Pleasant. Applications should be sent there directly, accompanied by a deposit of at least $10.00 to be applied toward the fee. 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.

230 Ecology. One sem hour
A course, taught principally in the field, identifying and illustrating basic ecological concepts with particular emphasis on their importance in the resolution of some current environmental problems.

231 Conservation. One sem hour
General principles of conservation, illustrated by field trips to resource-management projects in the vicinity.

233 Field Bird Study. One sem hour
Identification of birds and their songs and nesting habits, studied in laboratory and field.

234 General Field Botany. One sem hour
This course stresses field identification and ecological relationships of the higher plants. There is much opportunity for practice in the use of keys.

235 Field Entomology. One sem hour
Identification and control of insects of importance to conservation activities will be stressed.

236 Field Mammalogy. One sem hour
Field trips to study habits, food, behavior, life history, conservation, etc. of the mammals common to our state.

237 Aquatic Biology. One sem hour
Stresses field recognition of the organisms found in aquatic environments, and their interrelationships with one another and their physical environment.

FIELD COURSES AT FISH LAKE
KRESGE ENVIRONMENTAL EDUCATION CENTER
Director, Frank L. Sinclair

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.

During the spring session, a full resident program of field courses is normally offered. These courses are primarily at the undergraduate level; however, certain courses and independent studies are available for graduate students.

There is also 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 are 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.
CHEMISTRY

Department Head: Ronald W. Collins (Acting)
Associate Professors: Stephen W. Brewer, Kenneth W. Hicks, Ralph R. Powell, Krishnaswamy Rengan, Stephen E. Schullery, Bruce D. West, Jerry R. Williamson
Assistant Professors: Brenda Manning, Elva Nicholson, Donald B. Phillips
Instructor: Ellene T. Contis

The Chemistry Department offers the following programs of study: the Professional Curriculum in Chemistry and a major and minor in chemistry (page 61); two biochemistry majors and a biochemistry minor (page 56); and a Metallurgical Chemistry Curriculum (page 63). The department also participates in the programs in general science (page 88) and the Curriculum in Applied Physical Science (page 48).

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, 375 and 376 Honors Organic Chemistry and 377 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 CHM 374 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.

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

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: Physics, 100 Science for Elementary Teachers.

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 105 and 119 or 120 Fundamentals of Chemistry. Lecture: three hours per week. Laboratory: four hours per week.

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. Does not count on major or minor.

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: 115 Chemistry and Society.

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.

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 131 General Chemistry. Lecture: three hours per week. Laboratory: two hours per week.

120 Fundamentals of Chemistry. Four sem hours
A continuation of 119 Fundamentals of Chemistry, stressing organic chemistry and biochemistry. Completes the survey of chemistry begun in 119 and is a terminal course. Lecture: three hours per week. Laboratory: two hours per week. Prereq: 119 Fundamentals of Chemistry.

131 General Chemistry I. Five sem hours
The first semester of a two-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 119 Fundamentals of Chemistry.

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.

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: 3 hours per week. Prereq: 131 General Chemistry I and consent of Honors Committee.
196 Special Topics in Chemistry. Three sem hours
This special topics course may be used to teach some aspects of chemistry at an elementary level that would not be regularly offered. A new course may be taught on an experimental basis with this offering.

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. Lect: two hours per week.
Prereq: 132 General Chemistry II.

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. Lect: three hours per week.
Prereq: 131 General Chemistry, Physics 221 or 223 Mechanics, Sound and Heat, Mathematics 120 Calculus I.

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: 131 General Chemistry I.
Coreq: 241 Materials Science.

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. Lect: four hours per week.
Prereq: 131 General Chemistry I.

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. Lab: one three-hour period per week.

281 Quantitative Analysis. Four sem hours
A lecture and laboratory course treating instrumental, gravimetric and volumetric analysis. Lect: two hours per week. Lab: six hours per week.
Prereq: 132 General Chemistry II, or 134 Honors General Chemistry II.

282 Honors Quantitative Analysis. Four sem hours
A lecture and laboratory course treating instrumental, trace, separation, and characterization techniques. Lect: two hours per week. Lab: six hours per week.
Prereq: 132 General Chemistry II or 134 Honors General Chemistry II and consent of Honors Committee.

300 Cooperative Education in Chemistry. Three sem hours
Four or six months of full-time employment in 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: 281 Quantitative Analysis, junior standing, admittance to the program by application only.

341 Principles of Metallurgy. Three sem hours
A course covering the winning and refining, structure, diffusion, heat treatment, hardening and corrosion of metals.
Prereq: 131 General Chemistry I.

342 Experimental Metallurgy. One sem hour
A laboratory course emphasizing metallography, testing of physical properties, treatment, finishing, and analysis of metals and alloys. Lab: three hours per week.
Prereq: 242 Materials Science Laboratory or 341 Principles of Metallurgy. 341 Principles of Metallurgy prereq. or coreq.

351 Introductory Biochemistry. Three sem hours
A lecture course primarily for medical technology and diabetics students dealing with the structure, function and metabolism of biologically significant compounds and with the chemistry of physiological processes. No credit for both 351 and 451. Lect: three hours per week.
Prereq: 270 Organic Chemistry or equivalent.

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. Lab: four hours per week.
Prereq: 271 Organic Chemistry Laboratory or equivalent, and 281 Quantitative Analysis is also recommended.
Coreq: 351 Introductory Biochemistry.

361 Fundamentals of Physical Chemistry, Three sem hours
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 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. Lect: three hours per week.
Prereq: 132 General Chemistry II, Math 120 Calculus I and one year of college physics.

362 Physiochemical 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 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. Lab: four hours per week.
Prereq: 281 Quantitative Analysis
Coreq: 361 Fundamentals of Physical Chemistry.

371 Organic Chemistry. Three sem hours
A lecture course for students specializing in science and those preparing for dentistry or medicine. Lect: three hours per week. Not open to students who have credit for 270 Organic Chemistry.
Prereq: 131 General Chemistry I. 132 General Chemistry II recommended.

372 Organic Chemistry. Three sem hours
An advanced course in organic chemistry. This course will constitute the customary year of foundation work in organic chemistry. This course must be accompanied by 373 Organic Chemistry Laboratory. Lect: three hours per week.
Prereq: 371 Organic Chemistry.

373 Organic Chemistry Laboratory. Two sem hours
A laboratory course covering advanced preparative and analytical techniques of organic chemistry including extensive
use of IR and NMR instruments. Laboratory: six hours per week.
Prereq: 372 Organic Chemistry and 373 Organic Chemistry Laboratory.

375 Honors Organic Chemistry. 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: 132 General Chemistry II or 134 Honors General Chemistry II and admission to Honors Program or consent of Honors Committee.

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 376 Honors Organic Chemistry; six hours per week.
Prereq: 375 Honors Organic Chemistry; coreq: 376 Honors Organic Chemistry. Open only to those admitted to the Chemistry Honors Program or by special permission of the department.

400 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: 300 Cooperative Education in Chemistry, admittance to program by application only.

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.

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: 132 General Chemistry II. A course in organic chemistry and/or quantitative analysis is also recommended.

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: 461 Physical Chemistry or permission of the department; 232 Inorganic Chemistry is also recommended.

451 Biochemistry. 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: 270 Organic Chemistry, or equivalent, and 132 General Chemistry II.

452 Biochemistry Laboratory. Two sem hours
Provides laboratory experience in the isolation, purification and analysis of biochemically important compounds. Modern laboratory techniques are stressed. Laboratory: six hours per week.

453 Biochemistry. Three sem hours
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: 451 Biochemistry.

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: 281 Quantitative Analysis and a laboratory course in biochemistry.

461 Physical Chemistry. Three sem hours
A course which considers the principles of thermodynamics, kinetics and atomic and molecular structure. Lecture: three hours per week.
Prereq: 132 General Chemistry II, one year of college physics and 223 Multivariable Calculus.

462 Physical Chemistry Laboratory. Two sem hours
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: 281 Quantitative Analysis, 461 Physical Chemistry.

463 Physical Chemistry. Three sem hours
A continuation of the work begun in 461 Physical Chemistry. Lecture: three hours per week.
Prereq: 461 Physical Chemistry and 325 Differential Equations and Vector Analysis.

472 Spectrometric Organic Structure Determination. Two sem hours
The use of infra-red, ultra-violet, mass and nuclear magnetic resonance spectroscopy in organic structure determination. Emphasizes problem-working and practical application. Lecture: two hours per week.
Prereq: 372 Organic Chemistry.

473 Qualitative Organic Chemistry Laboratory. Two sem hours
The systematic identification of organic compounds is based on fundamental organic reactions and spectrophotometric measurements especially IR and NMR. Microtechniques are emphasized. Laboratory: six hours per week.

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: 281 Quantitative Analysis and 461 Physical Chemistry.
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: two hours per week. Laboratory: three hours per week.
Prereq: 131 General Chemistry I and one science lab course above the introductory level, or permission of the department.

490  Literature of Chemistry.  
Two sem hours
A course designed to provide a background in the use and nature of chemical information retrieval for students undertaking research or advanced study. Lecture: one hour per week plus in-library practicum.
Prereq: junior standing. Background in German or French recommended.

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.

496  Special Topics in Chemistry.  
Two sem hours
An advanced level course in a specific area of chemistry covering new developments in that field. The area covered will be the area of specialization of the staff member teaching the course, and will thus vary as the need and interest change. Lecture: two hours per week.
Prereq: Permission of the department.

497  Special Topics in Chemistry.  
Two sem hours
Same as 496 Special Topics in Chemistry. For students who wish to repeat the course under a different instructor for additional credit. Lecture: two hours per week.
Prereq: Permission of the department.

498  Special Problems in Chemistry.  
Two sem hours
A course for advanced chemistry students involving participation in original research. The student is required to do preliminary library work on the historical background of a research problem and to submit a detailed progress report at the end of the semester.
Prereq: Permission of the department.

499  Special Problems in Chemistry.  
Two sem hours
A continuation of 498 Special Problems. 
Prereq: 498 Special Problems in Chemistry and permission of the department.

ECONOMICS

Department Head: Young-Iob Chung
Professor: Carl D. Snyder
Associate Professors: Thomas C. Anderson, James R. Gibbons, Donald W. Pearson
Assistant Professors: John E. Anderson, Gordon L. Bennett, Raouf S. Hanna, Steven Hayworth, Mary McCarthy, Harold E. Simmons

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 97). The Economics Department also participates in the major and minor 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 the master's degree in economics. For descriptions of graduate courses and programs in the Economics Department, please consult the Graduate Catalog. For additional information contact the director of the Graduate Program in Economics.

COURSES

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 201 or 202 Principles of Economics.

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.

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: 201 Principles of Economics I or equivalent.

210  Mathematics for Economics.  
Three sem hours
A survey of major mathematics concepts and terms most used in the study of economics. Topics will include basic probability, elementary calculus and fundamental matrix algebra with their applications to economics. Not open to students having Mathematics 120 Calculus I and 121 Calculus II or equivalent.

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.
301 Intermediate Macroeconomic Analysis. Three sem hours
A study of national income analysis, employment theory and stabilization policies.
Prereq: 201 and 202 Principles of Economics or equivalent.

302 Intermediate Microeconomic Analysis. Three sem hours
A study of the theory of the firm, prices and resource allocations.
Prereq: 201 and 202 Principles of Economics or equivalent.

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: 210 Mathematics for Economics or Math 119 Mathematical Analysis for Social Sciences II or Math 120 Calculus I.

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.

321 Black Workers and Labor Market. Three sem hours
A consideration of the special problems and unique employment situation of black workers arising from historical and market influences and from corporate, union and governmental policies.
Prereq: One course in economics.

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.

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.

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.

• 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.

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.

• 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 analysis of the social security system of the U.S. as well as public assistance programs.
Prereq: 201 and 202 Principles of Economics or permission of the department.

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 is also surveyed.
Prereq: One course in economics or 200 Introduction to Women's Studies.

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: 201 and 202 Principles of Economics or equivalent.

• 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.

• 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.

• 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.

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: 201 and 202 Principles of Economics or equivalent.

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: 201 and 202 Principles of Economics or equivalent.

361 Corporation Finance. Three sem hours
An examination of the structure, financial organization, income and policy decisions of corporations.
Prereq: One course in economics.

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: 201 and 202 Principles of Economics or equivalent.

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 socioeconomic effects of the transportation sector on the rest of the economy.
Prereq: 201 and 202 Principles of Economics or equivalent.
370 Comparative Economic Systems. Three sem hours
A comparative analysis of the theoretical models underlying various economic systems; an investigation into how some of these systems in practice attempt to solve existing economic problems; how each of the major economic systems views the other economic systems.
Prereq: 201 and 202 Principles of Economics or equivalent.

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.

385 Economic Development. Three sem hours
A survey of theories of underdevelopment and an examination of some of the problems of underdeveloped economies, with an emphasis on development planning and policy making.
Prereq: 201 and 202 Principles of Economics or equivalent.

• 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.

400 Problems in Economic Theory. Two sem hours
A thorough study of selected problems in economic theory.

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: 201 and 202 Principles of Economics.

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: 310 Economic Statistics or equivalent.

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: 201 and 202 Principles of Economics, or permission of the department.

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: 320 Labor Economics and senior standing. Open only to students in Labor Studies major or minor.

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: 320 Labor Economics and senior standing.

• 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 will focus on the allocation of resources to the health care sector.
Prereq: 201 and 202 Principles of Economics or equivalent.

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: 201 and 202 Principles of Economics or equivalent.

455 Economic Efficiency in the Public Sector. 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: 201 and 202 Principles of Economics.

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: 201 and 202 Principles of Economics.

• 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: 201 and 202 Principles of Economics or equivalent.

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: 201 and 202 Principles of Economics or permission of the department.

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: 201 and 202 Principles of Economics or equivalent.

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.

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.
ENGLISH LANGUAGE AND LITERATURE

Department Head: Milton P. Foster
Assistant Professors: Thomas P. Allen, Nadean Bishop, Bernard Decker, William Hauer, Thomas P. Hennings, Edgar L. Jones, Meredith H. Klaus, Helen Larcom, Mary MacDonald, Frank McHugh, Glenn R. Ruhiley, Margaret Webb.
Instructor: 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 desirable 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, p. 81
Group Major in English and American Literature and Language, p. 81
Major in English Linguistics, p. 82
Major in English Language, p. 82
Interdisciplinary Major in Literature, Library Science, and Drama for the Young, p. 82
Group Major in Literature, Language, Speech and Dramatic Arts, p. 80

The seven minors are:
Minor in English Language and Literature, p. 83
Minor in Literature, p. 83
Minor in Children's Literature, p. 83
Minor in English Linguistics, p. 83
Minor in English Language, p. 83
Minor in Writing, p. 134
Minor in Journalism, p. 97

HONORS PROGRAM IN ENGLISH

The Department of English offers, when enrollments permit, an honors program to stimulate able students by allowing greater flexibility of program and independence of study than is usually possible in the regular English majors. The department welcomes any serious student who will find this work an encouragement. Freshman students who have excellent high school records and good test scores will find available special sections of 121 English Composition and, should demand permit, of the 100-level courses in Reading of Literature. Those of at least sophomore class standing who plan to become candidates for the honors program may enroll in any of the 298, 299, 398, or 399 Surveys of English Literature. Although students are permitted to take these four courses in any order desired, most find the sequence makes best sense if taken in the order of chronology. Upon completion of these four courses, honors candidates will enroll in 498-499 Senior Honors Seminar. Successful completion of these six courses and passing a comprehensive examination will bring recognition of honors in English, as part of the student's permanent record. Transfer students who wish to join the program are welcome. For further information concerning the honors program, call at the office of the Department of English Language and Literature.

298 Survey of English Literature (Honors). Three sem hours A study of important literary themes, topics, and movements in the literature of the Middle Ages and Renaissance.
Prereq: Superior performance in freshman literature courses and departmental approval.

299 Survey of English Literature (Honors). Three sem hours A study of important literary themes, topics, and movements in literature of the Restoration period through the eighteenth century.
Prereq: Superior performance in freshman literature courses and departmental approval.

398 Survey of English Literature (Honors). Three sem hours A study of important literary themes, topics, and movements in nineteenth-century literature.
Prereq: Admission to honors program.

399 Survey of English Literature (Honors). Three sem hours A study of important literary themes, topics, and movements in twentieth-century literature.
Prereq: Admission to the honors program.

498 Senior Honors Seminar. Three sem hours An intensive study of the major kinds of literary study.
Prereq: Admission to the honors program.

499 Senior Honors Seminar. Three sem hours The theory and practice of literary criticism.
Prereq: Admission to the honors program.

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 their first semester at Eastern as a prerequisite for 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 121 English Composition in their first year at Eastern Michigan University. Students MAY NOT DROP English composition 120 or 121.

Students in the PASS program are usually placed in 118 English Fundamentals. Those students completing 118 English Fundamentals satisfactorily must take 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 121 English Composition or a basic language course in a foreign language (121, 122, 131, 132, 133,
221 or 222 French, German or Spanish), according to the norms appearing on page 157.

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 12) are not required to take 121 English Composition.

**BASIC STUDIES LITERATURE POLICIES**

When fulfilling Basic Studies Literature requirements (see page 36) with courses from the English department, students will take 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.

**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**

**Composition and English Language**

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 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 118 will not take 120.

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 119 will not take 121.

120 **English Composition Laboratory.** Three sem hours

A laboratory course in the elements 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.

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.

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.

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.

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: 121 English Composition.

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.

302 **Modern English Syntax.** Three sem hours

An introduction to the syntax of standard English. Modern systematic approaches to syntax will be compared with traditional school grammar at salient points.

Prereq: Sophomore standing.

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: 215 Journalism.

307 **Newspaper and Magazine Editing.** Three sem hours

A study of professional techniques for editing copy, writing headlines, and designing pages, including knowledge and skills required for advising high school publications.

Prereq: 215 Journalism.

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.

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: Sophomore standing.

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.

325 Expository Writing. Three sem hours
The analysis and writing of various types of essays with emphasis on improvement of style.
Prereq: Sophomore standing.

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.
Prereq: Sophomore standing.

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: 207 Introduction to Children's Literature or equivalent.

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: 325 Expository Writing or 335 Imaginative Writing or permission of the department.

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: 302 Modern English Syntax.

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.

Literature

For the regulations concerning placement in Literature 100, 101, 102, 103, 210, 251, and 260, see page 154.

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.

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.
Prereq: 100 The Reading of Literature or placement.

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.
Prereq: 100 The Reading of Literature or placement.

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.
Prereq: 100 The Reading of Literature or placement.

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, Tolkien, Clarke, Heinlein, and Herbert.
Prereq: Two courses in literature.

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 with emphasis on those of North America.
Prereq: Two courses in literature.

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.

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; Speech and Dramatic Arts 210 or 124 Fundamentals of Speech. Students cannot earn credit in both SPH 245 and LIT 245 Introduction to Film.

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.

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.

300 Narrative in Literature and Film. Three sem hours
A study of the esthetic 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.

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.
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.

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.

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.

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.

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.

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.

320 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: Three courses in literature.

321 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.

322 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.

323 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.

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.

331 The Nineteenth Century Novel. 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.

332 The Twentieth Century American Novel. 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.

334 Women in Literature. Three sem hours
A study of women and their experiences as described in literature.
Prereq: Two courses in literature.

335 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.

336 The Eighteenth Century Novel. Three sem hours
Prereq: Three courses in literature.

337 English Literature 1558–1642. Three sem hours
A study of significant plays from the restoration of Charles II to the closing years of the 18th century.
Prereq: Three courses in literature.

338 English Literature 1608–1830. Three sem hours
A study of the chief literary movements in America from the beginning to 1830, including background of religious and political controversy, the neoclassical influence and the emergence of native American literature.
Prereq: Three courses in literature.

339 English Literature 1798–1832. Three sem hours
Prereq: Three courses in literature.

340 English Literature 1832–1880. Three sem hours
A 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.

341 English Literature 1660–1779. 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.

344 Women in Literature. Three sem hours
A study of women and their experiences as described in literature.
Prereq: Two courses in literature.

345 Folk Literature: Ballads and Folk Tales. Three sem hours
A study of folk tales that 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.

346 The American Novel 1830–1890. Three sem hours
A study of the American 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.

347 The American Novel 1832–1880. Three sem hours
A study of the chief novels of the Victorian period, with emphasis on such authors as Carlyle, Macaulay, Mill, Tennyson, Browning, Ruskin, Arnold and others.
Prereq: Three courses in literature.

348 American Literature 1608–1830. Three sem hours
A study of American literature from the beginning to 1830, including background of religious and political controversy, the neoclassical influence and the emergence of native American literature.
Prereq: Three courses in literature.

349 American Literature 1830–1890. Three sem hours
A study of the American 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.

350 Modern American and British Poetry. Three sem hours
A study of the English and American poetry from 1900.
Prereq: Three courses in literature.

351 Modern Drama. Three sem hours
A study of the chief dramatists from Ibsen to the present.
Prereq: Three courses in literature.

352 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.

353 Three sem hours
Prereq: Three courses in literature.
FOREIGN LANGUAGES AND LITERATURES

Department Head: Jean S. Bidwell
Professors: Eugene M. Gibson, Francisco Villegas
Associate Professors: William Cline, John R. Hubbard, Ana-Maria McCoy, Brigitte D. Muller, Benjamin W. Palmer, Raymond E. Schaub.
Assistant Professors: J. Sanford Dugan, Raymond V. Padilla, John C. Pisoni, Geoffrey M. Voght

The Department of Foreign Languages offers a variety of majors and minors in French, German, and Spanish and a group minor in Bilingual-Bicultural Education leading to either elementary or secondary certification (see program listings).

Foreign language majors contemplating careers in business are encouraged to choose a minor in the College of Business. In conjunction with the business language program, the French section administers examinations leading to the Diploma in Commercial French granted by the Chamber of Commerce and Industry of Paris and recognized by the French National Ministry of Education.

The Department also offers service courses in English as a foreign language, literature in translation, and language and culture studies.

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 221 and/or 233, or, with departmental approval, in a different 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 RESIDENCE REQUIREMENTS

Majors in a foreign language must complete at Eastern Michigan University courses numbered 443 and 444 and one appropriate course 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 two courses at the 300 level or above. See an adviser in the department for the specific courses required by each minor pattern.

FRENCH COURSES

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.

121, 122 Beginning French. Five sem hours each
Introductory course including practice in pronunciation, conversation, reading and composition. Students are to spend one and a half hours in the laboratory as part of their preparation.
131, 132, 133 Beginning French. Three sem hours each
Introductory course including practice in pronunciation, conversation, reading, and composition. Students are to spend one and a half hours in the laboratory as part of their preparation.

221, 222 Intermediate French. Three sem hours each
Rapid reading of large quantities of French prepares the student for comprehension of written French. Materials include readings in literature, history, and geography. Students who plan to continue in French should take courses 233, 234 Elementary French Conversation concurrently with 221, 222.
Prereq: 122 Beginning French, 133 Beginning French or three years of high school French.

233, 234 Elementary French Conversation. Three sem hours each
Students who plan to continue in French should take these courses concurrently with 221, 222 Intermediate French. The course meets three times per week. One day is devoted to grammar review, two days to conversation. As part of their home-work, students are to 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: 122 Beginning French, 133 Beginning French or three years of high school French. (See enrollment guidelines, page 157.)

341, 342 Survey of French Literature. Three sem hours each
This is the preliminary course in French literature. It covers, during the two semesters, the major writers from the beginning of French literature to the middle of the present century and is a prerequisite for all later courses in literature. Students must have sufficient oral comprehension to follow lectures in French.
Prereq: 222 Intermediate French or departmental approval.

343 French Composition. Three sem hours
Intended to provide a solid grounding in grammar and composition.
Prereq: 234 Elementary French Conversation or departmental approval.

344 French Conversation. Two sem hours
Meets three times per week. The student will spend three half-hour periods per week in the laboratory.
Prereq: 234 Elementary Conversation or departmental approval.

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: 341, 342 Survey of French Literature or departmental approval.

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: 341, 342 Survey of French Literature or departmental approval.

433 Studies in French Prose. Three sem hours
A study of selected French prose. Specific topic (themes,
491, 492 Seventeenth Century French Literature. Three sem hours each

GERMAN COURSES

121, 122 Beginning German. Five sem hours each
Instruction includes pronunciation, aural-oral pattern practice, the fundamentals of grammar, written exercise, reading. Students are to spend one-half hour per day in the laboratory as part of their homework for the next class.

131, 132, 133 Beginning German. Three sem hours each
Instruction includes pronunciation, oral-aural pattern practice and fundamentals of grammar, written exercise, reading. Students are to spend one-half hour per class day in the laboratory as part of their homework for the next class.

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 and idiomatic construction. Some discussion of written assignments in German. Students who plan to continue in German should take the course concurrently with 221, 222. Prereq: 122 or 133 Beginning German, or three years of high school German.

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: 122 or 133 Beginning German.

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 plan to use the language orally for teaching purposes. The course meets three times per week; one day is devoted to grammar review and two days to conversation. As part of their homework, students will spend two one-half hour periods per week in the laboratory. Prereq: 122 or 133 Beginning German or three years of high school German.

341, 342 Survey of German Literature. Three sem hours each
The first semester covers the early Germanic period through Classicism. The second semester extends from Romanticism to the present day. In German. Prereq: 222 Intermediate German or departmental approval. (Not open to freshmen.)

343 German Composition. Three sem hours
Intended to provide a solid grounding in grammar and composition for the teaching of German. Prereq: 234 Elementary German Conversation or departmental approval.

344 German Conversation. Two sem hours
For students who want to increase their practical knowledge of the spoken language. Meets three times per week with a half-hour per lesson in the lab listening to recordings and making tapes. Prereq: 234 Elementary German Conversation or departmental approval.

425 German Classicism. Three sem hours
A study of the literature of the classical period with primary emphasis on Goethe and Schiller. In German. Prereq: 341, 342 Survey of German Literature or departmental approval.

426 German Romanticism. Three sem hours
Intensive study of outstanding authors closely associated with Romanticism, as well as those peripheral to it. In German. Prereq: 341, 342 Survey of German Literature or departmental approval.

427, 428 Modern German Authors. Three sem hours each
A study of the representative works from the various literary movements of the nineteenth and twentieth centuries. In German. Prereq: 341, 342 Survey of German Literature or departmental approval.

443 German Syntax and Advanced Composition. Two sem hours
A senior level course in German vocabulary, structure and grammar. Half the course will be devoted to free composition and translation into German. The course may be repeated for supplementary credit since the material used will be changed frequently. Prereq: 343 German Composition and 344 German Conversation or departmental approval.

444 Advanced German Conversation. Two 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. The course may be repeated for supplementary credit. Prereq: 344 German Conversation and 343 German Composition or departmental approval.

451 Readings in German. One sem hour

452 Readings in German. 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.

SPANISH COURSES

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. Priority in registration will be given to freshmen and sophomores and to majors and minors in another foreign language.

131, 132, 133 Beginning Spanish. Three sem hours each
Specific emphasis on basic principles of grammar. Practice in elementary conversation, pronunciation, composition and reading. Students spend one half-hour per class in the laboratory as part of their preparation for class.
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.

221, 222 Intermediate Spanish.  Three sem hours each
For rapid reading of the language. Special emphasis on vocabulary building and on idiomatic construction. Students who plan to continue in Spanish should take concurrently courses 223, 234 Elementary Spanish Conversation.
Prereq: 122 or 133 Beginning Spanish, 134 Spanish for the Bilingual or three years of high school Spanish.

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: 122 or 133 Beginning Spanish, 134 Spanish for the Bilingual or three years of high school Spanish.

301 Spanish Life and Customs.  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: 222 Intermediate Spanish or equivalent.

302 Culture and Civilization of Latin America.  Three sem hours
Panoramic view of the cultures, the peoples and the environment of Latin America. In Spanish.
Prereq: 222 Intermediate Spanish or equivalent.

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: 222 Intermediate Spanish or departmental approval.

343 Spanish Composition.  Three sem hours
A thorough review of grammatical principles and practice in composition.
Prereq: 234 Elementary Spanish Conversation or departmental approval.

344 Spanish Conversation.  Two sem hours
Improved pronunciation, the acquisition of an active vocabulary for 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: 234 Elementary Spanish Conversation or departmental approval.

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: 222 Intermediate Spanish or departmental approval.

443 Advanced Spanish Composition.  Two sem hours
Designed to give the Spanish major advanced training in writing Spanish.
Prereq: 343 Spanish Composition and 344 Spanish Conversation, or departmental approval.

444 Advanced Spanish Conversation.  Two 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: 343 Spanish Composition and 344 Spanish Conversation, or departmental approval.

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: 352 Survey of Spanish-American Literature or departmental approval.

446 Spanish-American Theatre.  Three sem hours
A study of the theatre in Spanish America from its beginning to the present. In Spanish.
Prereq: 352 Survey of Spanish-American Literature or departmental approval.

447 Modern Novel.  Three sem hours
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: 342 Survey of Spanish Literature or departmental approval.

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: 342 Survey of Spanish Literature or departmental approval.

449 Romanticism.  Three sem hours
A study of the major works of Hispanic Romanticism. In Spanish.
Prereq: 342 Survey of Spanish Literature or departmental approval.

451 Readings in Spanish.  One sem hour

452 Readings in Spanish.  Two sem hours

453 Readings in Spanish.  Three sem hours
Special projects in directed reading for majors or minors who have completed the available offerings in Spanish, or who, because of most unusual circumstances, are granted departmental approval to substitute this for the regular courses.
Prereq: Departmental approval.

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: 352 Survey of Spanish-American Literature or departmental approval.

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: 342 Survey of Spanish Literature or departmental approval.

456 Drama of the Golden Age.  Three sem hours
(formerly 453) 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: 341 Survey of Spanish Literature or departmental approval.
GENERAL LANGUAGE AND BILINGUAL-BICULTURAL EDUCATION COURSES

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 or minor in any modern language. Should be taken during the junior year. Not open to students on academic probation.

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 or minor in any modern language. Should be taken before practice teaching. Not open to students on academic probation.

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.

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.

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.

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: 343 Spanish Composition or departmental approval.

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.

ENGLISH FOR FOREIGN STUDENTS

These courses are intended for and are sometimes required of students whose native language is not English.

110 English as a Foreign Language. 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 reading and writing. The course may be repeated for credit.

111 English as a Foreign Language. Three sem hours
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 writing. The course may be repeated for credit.

112 Review of English as a Foreign Language. Two sem hours
This course is designed primarily for non-native English speakers who have already taken CEN 110 and 111 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: Department approval.

Courses Given in English

These courses are open to students from all departments, and no knowledge of a foreign language is necessary.

103 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.

125 French Words in English. Two sem hours
French words and phrases in use in modern English are studied for origin and meaning. Correct pronunciation is stressed so that the student may acquire an active as well as a passive use of the material. The course is not open to students of French.

211 German and Germany Today. Three sem hours
A survey of contemporary life in the German-speaking areas of Central Europe with emphasis on the Federal Republic. Areas to be covered include family life, school systems, mass media, municipal planning, labor-management relations, social-political structures, church and religion, the economy and the arts. An introduction to conversational German will provide the student with a 1000-word vocabulary in a small number of sentence patterns, enough to enable him to travel and carry on simple conversations in the context of daily life.
114 French and France Today. Three sem hours
Will provide an insight into the cultural expressions of France (customs, way of life, arts), with Paris as the point of departure for the course. Cultural differences among the French themselves will be shown, and students will be exposed to elementary conversational French for travelers.

214 French Feminine Fiction. Three sem hours
An introduction to feminine literary expression in France. How progressive women through their literary accomplishments revealed different aspects of women’s condition. (Works studied in English translation.)
Prereq: Sophomore level.

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.

218 Spanish-American Literature in English Translation. Three sem hours
The purpose of this course is to give students who do not read Spanish some knowledge of the literature of Mexico and other Latin-American countries and, through literature, to induce a better understanding and appreciation of the culture and problems of that area.

234 Etymology. Two sem hours
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.

244 French Feminine Fiction. Three sem hours
An introduction to feminine literary expression in France. How progressive women through their literary accomplishments revealed different aspects of women’s condition. (Works studied in English translation.)
Prereq: Sophomore level.

371 Dante in English Translation. Three sem hours
This course is designed for students without a knowledge of Italian and will consist of a study of the Commedia Divina and the Vita Nova, in English translation, with background material on the Age of Dante.

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) 301 or 302 English; or departmental approval.
GEOGRAPHY AND GEOLOGY

Department Head: Elwood J. C. Kureth
Assistant Professors: Allen Cichanski, Robert Mancell.

The Geography and Geology Department offers a major and a minor in geography (page 88), geology (page 89), earth science (page 75), and land use analysis (page 98), and a new minor in coastal environments (page 63).

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 49 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 120 for details.

GRADUATE STUDY

The Geography and Geology Department offers graduate work leading to the master’s degree in geography. For descriptions of graduate courses and programs in the Geography and Geology Department, please consult the Graduate Catalog.

GEOGRAPHY AND GEOLOGY COURSES IN SCIENCE

Where the department notes an intention to offer a course in a particular pattern, such as “fall sem 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:

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 and geology. Lecture: three hours per week. Laboratory: one two-hour period per week.

109 Drifting Continents and Spreading Sea Floors. Three sem hours
(Formerly Revolutions in Earth Science)
An introduction to the new theories of continental drift and sea-floors 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: 108 Earth Science or 202 Science for Elementary Teachers or permission of the department.

114 National Parks and Monuments. Two sem hours
An analysis of the geology, vegetation and wildlife 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.

202 Science for Elementary Teachers. Three sem hours
(formerly 102)
Lectures and laboratory deal with earth science concepts and teaching methodology. Nationally used elementary science curriculums serve to acquaint the student with the techniques of teaching basic earth science concepts. Emphasis is on student-centered, process-oriented approaches that are widely used in elementary school classrooms. Third course in Elementary Science sequence.

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: 108 Earth Science or permission of the department.

223 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: 108 Earth Science or one course in physics, chemistry or biology.

224 Principles of Conservation. Four sem hours
(See Biology, page 141)

226 The Oceans. Two sem hours
A study of the oceans, including coasts, development of currents, water mass and temperature patterns, tides, sediment deposition, submarine topography, the energy balance and research techniques. The economic potential of marine waters and the products of the sea in relation to man are stressed.
Prereq: 108 Earth Science.

227 Topographic Maps. Two sem hours
Interpretation of distances, slopes, and terrain features as shown on topographic maps. Preparation of contour maps from numerical data and of topographic profiles from contour maps; the correlation of landforms and landscape patterns with the geologic materials and processes responsible for them. (Winter semester only)
Prereq: 108 Earth Science.

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)
Prereq: 131 General Chemistry I.

229 Rocks of Michigan. Two sem hours
The identification and classification of rocks with special emphasis on characteristics used in the field.
Prereq: 108 Earth Science.
230 Historical Geology. Three 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 required. (Fall semester only)
Prereq: 108 Earth Science or permission of the department.

231 Historical Geology Laboratory. One sem hour
Use of tools involved in interpreting the geologic history of the earth from field-collected information. Exercises demonstrate the philosophy and implementation of the major principles of geologic history and paleontology. Fossils, cross sections and maps are prepared and used in theoretical and practical problem-solving. Two hours per week. (Fall semester only)
Prereq or coreq: 230 Historical Geology.

- 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: 108 Earth Science or 105 Biology or permission of the department.

255 Field Geology I. Three sem hours
Theory and practice of techniques of field geologic mapping in local Michigan areas. Horizontal measurement using compass, tape, alidade and plane table; vertical measurement using tape, alidade and plane table. With Field Geology II, satisfies field geology requirement for the major in geology.
Prereq: 108 Earth Science and permission of the department.

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.
Prereq: 108 Earth Science or 110 World Regions or permission of the department.

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; certain types of reproduction techniques. One hour lecture, four hours laboratory per week.
Prereq: 301 Cartography or permission of the department.

303 Field Geography. Three sem hours
Techniques in the observation of geographic features in the field. Emphasis is upon individual and group problem formulation, problem solving of geographic questions by using the scientific method, and combining traditional field exploration with the use of some library aids. Lecture, laboratory and discussion.

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: 108 Earth Science or permission of the department.

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.

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: 108 Earth Science and 230 Historical Geology or permission of the department.

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. Laboratory. Field trips and reports required. (Winter semester only)
Prereq: 108 Earth Science.

327 Soil Science. Two sem hours
An introduction to soil science including the mineralogic, genetic, physical, chemical and biological properties of soils as related to earth science and the physical and economic environment of man. Field trips and reports required. (Fall semester only)
Prereq: 223 Weather and Climate or permission of the department.

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: 228 Mineralogy. Not open to students with credit in 229 Rocks of Michigan.

330 Sedimentation and Stratigraphy. Three sem hours
Study of 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: 108 Earth Science or equivalent; 228 Mineralogy.

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. Field trips and reports required. (Fall semester only)
Prereq: 108 Earth Science or 230 Historical Geology or 105 Biology and the Human Species or permission of the department.

- 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.

355 Geologic Field Methods. One sem hour
Construction principles and use of conventional instruments
in geologic surveys, note taking and preparation of illustrations and reports. [Winter semester only]
Prereq: 108 Earth Science, 228 Mineralogy, 326 Structural Geology, 329 Petrology completed or currently enrolled or permission of the department.

356 Field Geology II. Two sem hours
Instruction and practice in the measurement of stratigraphic sections, mapping areal geology and geologic structure, using air photos, topographic maps, altimeter, tape, plane table and alidade, in Rocky Mountain west. With Field Geology I, satisfies field requirement for major in geology.
Prereq: 255, 329, 330, 230, and 326, and permission of the department.

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: 108 Earth Science, 230 Historical Geology, 330 Sedimentation and Stratigraphy or permission of the department.

424 Climatology. Two sem hours
Examine 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: 223 Weather and Climate.

428 Optical Mineralogy. Four sem hours
Study of the optical properties of crystalline matter. The petrographic microscope will be used in the identification of non-opaque and some opaque minerals, using crushed fragments and some thin-sections. (Fall semester, odd-numbered years only)
Prereq: 228 Mineralogy and 224 Electricity and Light (Physics).

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 and 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: 230 Historical Geology, 326 Structural Geology, 329 Petrology, 330 Sedimentation and Stratigraphy or permission of the department.

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 non-metallic deposits. (Fall semester, even-numbered years only)
Prereq: 228 Mineralogy.

448 Ground Water. Three sem hours
Ground 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. Lecture three hours per week. Field trips and reports are required. (Fall semester only)
Prereq: 108 Earth Science, junior standing.

- 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 or permission of the department.

462 Meteorology. Two sem hours
Instruction in weather map and data analysis and in principles and procedures of forecasting; includes use of all types of weather information: surface, upper air, radar and weather satellite; compares methods and predictability for forecasts ranging from a few hours to months. One hour lecture and two hours laboratory.
Prereq: 223 Weather and Climate or equivalent.

470 Quantitative Methods in Geography and Geology. Three sem hours
An introduction to current techniques and methods applicable to geographic and geologic problems. A laboratory course with emphasis on statistical analyses and computer applications.
Prereq: Geography, geology or earth science major, junior standing, or permission of the department.

475 Computer Mapping. Three sem hours
Laboratory course centering on the SYMAP Program (Syngaphic Mapping System) and including other current mapping programs such as CMAP, GRID, GGRID, CONTOUR, 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.

480 Special Topics in Earth Science. Two sem hours

481 Special Topics in Geography. Two sem hours

482 Special Topics in Geology. Two 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. Information on content can be obtained at departmental office.
Prereq: Permission of the department.

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: 108 Earth Science or 105 Biology and the Human Species or 106 Orientation to Biology, junior or senior standing, or permission of the department.

GEOGRAPHY COURSES IN SOCIAL SCIENCE

The following courses count in Group III:

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.
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.

- 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.

203  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: 110 World Regions or 108 Earth Science.

205  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: 110 World Regions or 108 Earth Science.

211  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: 110 World Regions or 108 Earth Science.

235  Economic Geography.  Three sem hours
Systematic treatment of economic activities in selected world locations, with emphasis on areal factors involved in the evaluation, production and distribution of goods and services.

300  Location and Site Analysis.  Three sem hours
Practical and theoretical application of models which explain the location of man's activities on earth. Recommend: 110 World Regions or 235 Economic Geography.

310  Energy Awareness.  Three sem hours
(formerly Geography of Energy)
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. 110 World Regions or 108 Earth Science are recommended.

311  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: 110 World Regions or 108 Earth Science.

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: 110 World Regions or 108 Earth Science.

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: 110 World Regions or 108 Earth Science.

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: 110 World Regions or 108 Earth Science.

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: 110 World Regions or 108 Earth Science.

332  Urban Geography.  Three sem hours
A study of geographic principles related to distribution, function, structure and regional setting of urban centers. Prereq: 110 World Regions or 108 Earth Science.

333  Settlement Geography.  Three sem hours
Cultural, functional, and ecological factors underlying man's settlement patterns; pioneer occupation and migration. Prereq: 110 World Regions or 108 Earth Science.

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: 110 World Regions or permission of the department.

- 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.

359  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: 110 World Regions or 108 Earth Science.

360  Cultural Geography.  Three sem hours
Human landscape patterns: emphasis is upon the processes concerned with their origins, locations and persistence. Prereq: 108 Earth Science or 110 World Regions or permission of the department.

361  Geography of Population.  Three sem hours
An analytical study of population characteristics and growth including world patterns of fertility, mortality and migration. Major attention is given to human population problems, including ecology, resources depletion and impacts of urbanization. Prereq: 110 World Regions or permission of the department.

365  The Cultural Basis of the City.  Three sem hours
Nature, origins and dispersals of urbanism; regional examination of pre-industrial, mercantile, colonial, primate, and industrial cities as urban types; traditional symbolism of the city; man's view of the city through the ages. Prereq: 110 World Regions or permission of the department.

431  Historical Geography of the United States.  Three sem hours
The sequence of human occupancy of the United States from pre-European times to the present. Temporal and spatial evolution of cultural landscapes. Prereq: 211 Geography of the United States and Canada or permission of the department.

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: 110 World Regions or 108 Earth Science, or permission of the department.

433 Political Geography of the United States.

Three sem hours
A study of variety and diversity of geographic forms of political behavior, organization and structure in the United States.
Prereq: 108 Earth Science or 110 World Regions or permission of the department.

• 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: 110 World Regions or permission of the department.

438 Industrial Location. Three sem hours
(formerly Manufacturing Geography)
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: 235 Economic Geography or permission of department.

440 World Food Systems. Three sem hours
(formerly Geography of Agriculture)
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: 235 Economic Geography or permission of department.

441 Transportation Geography. Three sem hours.
Geographic analysis and evaluation of transportation means and systems up to the present and for the future.
Prereq: 235 Economic Geography or permission of department.

497 Individual Problems. One sem hour
498 Individual Problems. Two 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.

GEOGRAPHY COURSES IN EDUCATION

The following courses count in Group IV:

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: 108 Earth Science or equivalent and junior standing or permission of the department. Not open to students on academic probation.

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 and ethnic groups is included.
Prereq: One course in Geography. Not open to students on academic probation.
HISTORY AND PHILOSOPHY

Department Head: Ira M. Wheatley
Associate Professors: Lee R. Boyer, W. Donald Briggs, Jeffrey A. Fadiman, Emanuel G. Fenz, Della M. Flusche, Thomas H. Franks, Sidney Gendin, James E. Green, Daryl M. Hafter, Michael W. Homel, Michael T. Jones, H. Roger King, Walter G. Moss, Margaret L. Rossiter
Assistant Professors: Howard F. Kamler, William A. Miller, Jiu-Hwa Upshur

UNDERGRADUATE PROGRAMS

The department offers majors and minors in History (see page 91) and Philosophy (page 115), and supervises a major in Social Science (page 127). 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 41 for requirements.

GRADUATE PROGRAMS

The History and Philosophy Department offers graduate work leading to the Master of Arts in history or social science. For descriptions of graduate courses and programs in the History and Philosophy Department, please consult the Graduate Catalog.

COURSES

World History

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.

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.

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.

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.

201 The Comparative Study of Religion. Three sem hours
An introduction to the systematic study of religious experience and expression, organized around representative motif, phenomena and institutions and illustrated with relevant examples from the various historical religious traditions.

235 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.)

300 Topics in History. 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 permission of the department.

Note: Students may count not more than six hours of this course as credit toward the major or minor.

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: 201 The Comparative Study of Religion or 103 History of Non-Western Civilization.

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: 201 The Comparative Study of Religion or 103 History of Non-Western Civilization.

307 War in the Modern World. Three sem hours
A study in the theory and practice of war from the French Revolution to Vietnam.

390 Multimedia Approaches to History. Three sem hours
Approaches to historical analysis and research, emphasizing the integration of visual materials, photographs, music, the spoken word and traditional primary sources. Basic mechanics for the production of audio-visual presentations on historical topics will be treated. Students will work individually and in groups toward creation of complete and original presentations. Historical content of the course will vary.

393 History and Historians. One sem hour
A study of the nature of history as reflected in the writing of authorities in the field of historiography. Prereq: Four courses in history.

394 Historical Research. Two sem hours
An introduction to historical research. The course includes bibliographical techniques, critical analysis of sources, and the application of these skills to one or more research projects. Prereq: Four courses in history.

395 Honors Studies in History. Three sem hours
Honors Studies in History will treat a challenging set of issues or problems in a seminar. Class participation in the form of oral reports and discussions with an emphasis on
individual projects and papers. Everyone in the class will address a central theme.

Prereq: Junior standing and a 3.0 grade point average in previous history courses, or permission of the department.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Description</th>
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<tbody>
<tr>
<td>333</td>
<td>Europe since 1919.</td>
<td>Three sem hours</td>
<td>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.</td>
</tr>
<tr>
<td>335</td>
<td>History of Women in Europe.</td>
<td>Three sem hours</td>
<td>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: 102 History of Western Civilization.</td>
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<tr>
<td>338</td>
<td>German History since 1815.</td>
<td>Three sem hours</td>
<td>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 standing or permission of the department.</td>
</tr>
<tr>
<td>343</td>
<td>History of Russia to 1855.</td>
<td>Three sem hours</td>
<td>A survey of political, economic and cultural trends in the history of Russia from Rurik to the death of Tsar Nicholas I, with special emphasis on the growth of Tsarist absolutism. Prereq: Junior standing or permission of the department.</td>
</tr>
<tr>
<td>344</td>
<td>History of Russia since 1855.</td>
<td>Three sem hours</td>
<td>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.</td>
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<tr>
<td>435</td>
<td>Italy since 1815.</td>
<td>Three sem hours</td>
<td>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.</td>
</tr>
<tr>
<td>456</td>
<td>Europe since 1945.</td>
<td>Three sem hours</td>
<td>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.</td>
</tr>
<tr>
<td>471</td>
<td>Social and Intellectual History of Nineteenth Century Europe.</td>
<td>Three sem hours</td>
<td>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.</td>
</tr>
<tr>
<td>123</td>
<td>Major Trends in United States History.</td>
<td>Three sem hours</td>
<td>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.</td>
</tr>
<tr>
<td>223</td>
<td>History of the United States to 1877.</td>
<td>Three sem hours</td>
<td>A study of United States history from the period of exploration through the Reconstruction of the South following the Civil War.</td>
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</tbody>
</table>
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.

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.

304 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.

305 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.

313 Michigan History. Three sem hours
A survey of major economic, social and political developments in Michigan from prehistoric times to the present. Emphasis is placed on the period prior to the twentieth century.

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.

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 upon women, and the feminist movements of the nineteenth and twentieth centuries.
Prereq: One course in history.

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.

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.

356 Latin America: National Period. Three sem hours
Latin-American history: National Period 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.

357 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.

360 United States Labor History. Three sem hours
A history of labor and labor movements in the United States from colonial times to the present. The period from the 1870s through the 1950s will receive the heaviest emphasis. Unions and their leadership, government-labor relations, unorganized workers and the impact of economic change on labor will be among the major themes discussed.
Prereq: One course in history.

361 Foreign Relations of the United States. Three sem hours
A survey of the foreign relations of the United States with chief emphasis on the diplomacy of the period after the Civil War.

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 223 History of the United States to 1877 or 224 History of the United States, 1877 to the Present.

365 The Old South. Three sem hours
The South from the colonial foundations to the formation of the Confederacy in 1861.
Prereq: 123 Major Trends in United States History or 223 History of the United States to 1877 and junior standing.

368 Social and Intellectual History of the United States to the Civil War. Three sem hours
Society, thought 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 social and artistic implications. Not open to freshmen or sophomores.

369 Social and Intellectual History of the United States since the Civil War. Three sem hours
Society, thought and culture in America during the late nineteenth and twentieth centuries. Includes such subjects as Pragmatism, Social Darwinism and Urbanization together with their social and artistic implications. Not open to freshmen or sophomores.

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: 223 History of the United States to 1877 or equivalent.

382 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: 123 Major Trends in United States History or 223 History of the United States to 1877 or equivalent.

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.
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.

387 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: 223 History of the United States to 1877 or 224 History of the United States, 1877 to the Present or equivalent.

411 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: 123 Major Trends in United States History or 223 History of the United States to 1877 or 224 History of the United States, 1877 to the Present or permission of the department.

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.

425 The U.S. in the 20th Century: Prosperity, Depression and World War II. Three sem hours
Business rule and cultural ferment of the 1920s; Depression and New Deal reform; a second global conflict and the brief "one world" phase.
Prereq: 224 History of the United States, 1877 to the Present or equivalent or permission of the department.

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: 224 History of the United States, 1877 to the Present or equivalent or permission of the department.

Non-Western History

340 The Middle East and North Africa to 1798. Three sem hours
A survey of political, economic, religious and cultural developments in the Middle East and North Africa from the time of Muhammad to 1798. Special attention is given to cultural achievements and to relations between Muslims and Christians.

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.

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.

371 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.

373 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.

374 History of Modern Japan. Three sem hours
Japan from 1800 to the present: collapse of the shogunate, 19th century reforms, rise of the empire to great power status, defeat in World War II, post-war changes. Political, economic and cultural developments are considered.
Prereq: Junior standing or permission of the department.

375 Modern India. Three sem hours
The development and maturing of British rule in India against the background of Indian culture. The rise and development of Indian nationalism and the struggle for independence. Independence and the problems faced by India since 1947.
Prereq: Junior standing or permission of the department.

376 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.

377 History of Sub-Saharan 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.

Teaching Methods:
History and Social Studies

348 Teaching Social Studies in Elementary Schools. Three sem hours
(See Geography and Geology Department)

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

497 Independent Study in History. One sem hour
498 Independent Study in History. Two sem hours
499 Independent Study in History. 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

I. Basic Courses

180 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.

200 Types of Philosophy. Three sem hours
The goal of this course is to introduce the student to philosophy by the study of such types of philosophy as rationalism, empiricism, idealism, materialism and pragmatism. The course uses as sources representative works from such authors as Plato, Lucretius, Descartes, Berkeley and William James.

210 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.

II. Intermediate Courses of General Interest

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. By studying the arts themselves and the philosophies, the course integrates the arts involved.

213 Philosophical Bases of Contemporary Art (Theatre, Film, Architecture). Three sem hours
The course will analyze and clarify the philosophical problems underlying such art forms as theatre, film, and architecture.

220 Ethics. Three sem hours
An introduction to the major problems of ethical theory through careful study of works selected from major 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. Prereq: 180 Introduction to Logic or 200 Types of Philosophy.

230 Existentialism. Three sem hours
An examination of contemporary existentialism thought about the nature of reality and human existence as reflected in the works of such men as Marcel, Heidegger, Sartre and Camus. The course also includes a study of the sources of existentialism as found in the works of Kierkegaard and Nietzsche. Prereq: 180 Introduction to Logic or 200 Types of Philosophy or 210 Philosophy of Life.

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: 180 Introduction to Logic or 200 Types of Philosophy or 210 Philosophies of Life.

III. Studies in the History of Philosophy

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. The course covers the pre-Socratics, Plato, Aristotle, the Stoics, St. Augustine, St. Thomas Aquinas, Occam and Duns Scotus. Prereq: 180 Introduction to Logic or a 200-level course in philosophy or departmental approval of standing in the Humanities Program.

231 History of Philosophy: Modern. Three sem hours
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. This course is a continuation of 230 History of Philosophy: Ancient and Medieval. Prereq: 180 Introduction to Logic or a 200-level course in philosophy or departmental approval of standing in the Humanities Program.

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 200-level course in philosophy or departmental approval of standing in the Humanities Program.

270 Philosophical Issues in Literature. 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, aesthetic evaluation, aesthetic meaning and aesthetic 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.
350 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.
Prereq: 180 Introduction to Logic or 200 Types of Philosophy or 210 Philosophies of Life.

355 Philosophy of Law.  Three sem hours
Philosophical questions about the law include the following four areas: (1) What sorts of behavior should be illegal? For example, should prostitution be illegal? Should 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 their 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: 180 Introduction to Logic or 200 Types of Philosophy or departmental permission.

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.

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: 110 Introduction to Logic or permission of the department.

400 Philosophy Seminar-Topics.  Two sem hours
An intensive study of selected topics in philosophy. Classwork 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.

405 Philosophy Seminar-Individuals.  Two sem hours
An intensive study of the work of a prominent philosopher. Representative philosophers are Plato, Aristotle, Hume, Descartes, Hegel, and Russell. Plato or Aristotle will be offered at least once every two years. The course 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.

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.

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.

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.

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.

497 Independent Study in Philosophy.  One sem hour

498 Independent Study in Philosophy.  Two sem hours

499 Independent Study in Philosophy.  Three sem hours
Advanced study on an individual basis in areas in which the department does not offer a formal course. The course is restricted to juniors and seniors who are majoring or minoring in philosophy.
Prereq: Permission of the department.
GENERAL HUMANITIES PROGRAM

Director: William F. Shuter
Faculty: Richard H. Abbott (History), Frederick Anderson (Philosophy), Jeffrey L. Duncan (English), Emanuel G. Fenz (History), Thomas H. Franks (Philosophy), David J. Geherin (English), Richard D. Goff (History), Arthur J. Harris (English), F. Eugene Haun (English), Robert O. Holkeboer (English), James Holoka (Foreign Languages), Donald A. Lawniczak (English), Russell R. Larson (English), Mitchell R. McElya (Dramatic Arts), Paul D. McGlynn (English), Walter G. Moss (History), Brigitte D. Muller (Foreign Languages), David W. Sharp (Art), Lawrence R. Smith (English), Janice J. Terry (History), Jiu Hwa Upshur (History), James C. Waltz (History).

General Humanities courses offer an integrated introduction to the liberal arts and satisfy the University’s Basic Studies requirements in history, religion, philosophy, English language and literature, composition, art, music, and drama. The courses may be taken by all students, regardless of their major. (See Basic Studies Requirements, page 35.) Each semester’s class schedule booklet lists the Basic Studies requirements satisfied by each humanities course.

The program asks the question, “What can we learn about ourselves and our own culture by studying other cultures remote in time or place?” Courses in the program 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. All courses are interdisciplinary and taught by specialists from various departments. Classes meet in lectures, small discussion groups and seminars.

Students completing 12 hours of humanities courses may offer 3 of those hours in satisfaction of the 121 English Composition requirement. Students completing 24 hours of humanities courses may offer an additional 3 hours in satisfaction of the second English language requirement under Group I. Any course in the program may be taken as a free elective.

Humanities courses satisfy certain requirements for a major or minor in English, history or philosophy.

English Major

Students completing three humanities courses in which members of the Department of English Language and Literature have been instructors are understood to have completed from three to nine hours toward an English major or minor, depending on which English major or minor is chosen. 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 nine hours in substitution for three hours of English composition and six hours of literature. Students choosing the major in literature, the minor in literature, or the minor in children’s literature will be given six hours in substitution for six hours of literature. Students taking the minor in English linguistics, the major in English language, the minor in English linguistics, or the minor in English language will be given three hours in substitution for three hours of English composition.

After completing twelve hours in the freshman humanities program, students will be permitted to enroll in English courses for which 121 English Composition or two courses in literature are prerequisites.

History Major or Minor; Social Science Major

A student who completes two humanities courses 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 200 is a prerequisite.

Students who have taken Humanities 122, American Studies: Success and the Pursuit of Happiness in 19th Century America, may enroll in:

Philosophy 240—American Philosophy
Philosophy 270—Philosophical Issues in Literature

Students who have taken Humanities 151, Reason and Revolution, may enroll in:

Philosophy 231—History of Philosophy—Modern
Philosophy 260—Existentialism
Philosophy 270—Philosophical Issues in Literature

Students who have taken Humanities 124, The Age of Wagner, may enroll in:

Philosophy 260—Existentialism
Philosophy 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.

COURSES

The humanities program was initiated in the fall of 1974 with the assistance of a generous grant from the National Endowment for the Humanities. The following courses have been prepared for possible offering in the year 1978–79. Subsequent bulletins will list new courses as they are developed.

101 Rome and America. Six sem hours

The purpose of this course is to compare two civilizations and to isolate characteristics common to men separated in time by 2,000 years. By viewing the people and culture of Ancient Rome and Modern America through the eyes of contemporary observers, the course investigates the problems and pressures of everyday urban existence. The hopes and ideals of the individual, attitudes toward love and sex, religious beliefs, notions about death and questions of morality and government are among the subjects considered. One section of the course is taught by a member of the English Department and a classicist. (This section satisfies two literature requirements.) The other section is taught by a member of the History Department and a member of the English Department. (This section satisfies one literature and one history requirement.)

102 Society in Crisis: 1848 and 1968. Six sem hours

This course will compare and contrast the social crises that culminated in two revolutionary movements and their aftermaths: 1848 in Europe, and 1968 in the United States and Europe. It will focus on four interrelated characteristics of the periods to show the similarities as well as the differences between them. These characteristics are alienation, women, the rise of nationalism and ethnic consciousness, and the revolutionary outlook and its ultimate frustration. This course is taught by a member of the English Department and of the History Department. (This course satisfies one literature and one history requirement.)

121 Islam: The Golden Age. Three sem hours

(formerly 102)

While Europe was a fragmented society of illiterate, feudal kingdoms, the Islamic world kept alive the science, medi-

Three sem hours
(formerly 103 Technology and the “Good Life” in 19th Century America)
In the 19th century, the idea of human progress became identified in the United States with the fact of material progress. It was widely believed that worldly success would produce happiness for all. On the other hand, some of the most thoughtful writers of the time challenged both the belief and its consequences. Growing out of this conflict were the three main problems that provide the primary material in this course: the proper relationship of knowledge and power, history and progress, wealth and happiness. The reading will include such authors as Benjamin Franklin, H. D. Thoreau, William James, Mark Twain, and Horatio Alger. The lectures will occasionally feature films. 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.)

The Splendid Centuries of Austria. Three sem hours
(formerly 104)
A survey of the cultural history of Austria from the 17th and 18th centuries to the end of the Hapsburg Empire after World War I, this course will consider art, music and literature against the intellectual, political and social background of the period. Areas covered will include the Baroque and Rococo periods of art and the Classical and Romantic periods of music and literature. Students will be introduced to the music of Haydn, Mozart, Beethoven, Schubert, Mahler and Richard Strauss. Grillparzer, Kafka, Hofmannsthal and Schnitzler will be among the writers read. Extensive use will be made of recordings and slides. The course will be team taught by a member of the Music Department and a member of the History Department. (This course satisfies one music or one history requirement.)

The Age of Wagner.

Three sem hours
(formerly 105)
This course will illustrate the importance of Richard Wagner’s achievement and introduce students to the circle of personal relationships, intellectual influences and artistic affinities that meet in Wagner’s life and work. The circle includes such figures as the Grimm brothers, Berlioz, Novallis, Schopenhauer, Liszt, Nietzsche and Ludwig II of Bavaria. Wagner’s influence will be traced in the French Symbolists, George Bernard Shaw, and Thomas Mann. The course will be team taught by a member of the English Department and a member of the Philosophy Section. (This course satisfies one philosophy or one literature requirement.)

Russia in the Age of Tolstoy and Dostoevsky.

Three sem hours
This course will introduce students to life and developments in Russia in the half century prior to World War I. Selected literature and to a lesser extent art and music will be examined both for their own value and for the light they shed on such areas as peasant, urban or aristocratic life, and the revolutionary movement. It will be 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.)

The Age of Shakespeare.

Three sem hours
A study of Shakespeare and Elizabethan England, this course has three main objectives: to acquaint the student with some of the basic areas of Renaissance thought as background to Shakespeare’s plays, e.g., the concept of order and degree, social reform, morality, and theories of art; to acquaint students with at least three major works of the poet embodying three concepts, e.g., Richard II, Twelfth Night, King Lear; and to encourage the student to evaluate these ideas and the literature within the framework of a particular place and time other than our own. In the exploration of the plays themselves, the theatrical point of view will play a significant part. 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.)

Reason and Revolution.

Three sem hours
(formerly 201)
Beginning with Puritan England, Louis XIV’s France and the Academic tradition, this course will close with the career of Napoleon and those personalities who paved the way for the Romanticism of the 19th century. It will examine the transition in political history, philosophy, art, literature and music during this period of changing modes of thinking, seeing, feeling, and shaping experience. The course will be taught by faculty from four departments and students will have the opportunity to work both in separate disciplines and with the team as a whole. The course will be taught by members of the Art, Philosophy, History, and English Departments. (This course satisfies one of the following requirements: art, history, philosophy or literature.)

From the Gay Nineties to the Crash.

Three sem hours
A series of biographical portraits provides 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.)

From the Middle Ages to the Renaissance: Sacred and Profane Love.

Three sem hours
This course will trace 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. It will focus on the role of the patron, from the courts of southern France to the cities of Italy, as an influence on subject matter and philosophy. The course will analyze the allegorical method as developed in classical times and modified through the Middle Ages and Renaissance period. 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 one art requirement.)

The Legacy of Greece.

Three sem hours
(formerly 301)
An introduction to some influential works of Greek literature—epic, drama, poetry, history and philosophy—this course will illustrate the influence of the Greek tradition on Western civilization. The literature will be read in English translation. Representative examples of Greek architecture and sculpture will also be examined. The course will be taught by a classicist and a member of the English Department. (This course satisfies one literature requirement.)
182 The Legacy of China. Three sem hours
This course looks at the achievements of Chinese civilization over 3,000 years. It surveys the history of China: her magnificent literary and artistic accomplishments; her long record of philosophy, idealistic yet practical; her mastery of painting, sculpture and ceramics; as well as her contributions in some of the minor arts. It looks at China's contributions and influence not only to East Asia but to all human history and culture. The course will include readings in translation from Chinese literature, and will 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.)

201 Narrative in Literature and Film. Three sem hours
This course will focus primarily on narrative techniques (structure, plot development, characterization, etc.) in literature and parallel devices in films. The student will become acquainted with cinematic concepts and terminology such as montage, camera angles and proximity, focus, color values, and cutting. Emphasis will be placed on the shared esthetic, rhetorical and narrative techniques of the two art forms. Readings will 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 satisfies one literature requirement. Students may not earn credit in both this course and LIT 300 Narrative in Literature and Film. 
Prerequisite: One Humanities course.

MATHMATICS

Department Head: James H. Northey.
Professors: Larry L. Badii, Donald A. Buckeye, John L. Ginther, Delia Koo
Associate Professors: Andrew C. Dempster, Bob L. Goosey, Hartmut F.W. Hoft, Paul E. Howard, Kurt F. Lauckner, Alan L. Macdonald, Richard W. Marshall, Robert A. Mills, Joanne Rankin, Manda B. Suryanaryana, Nelly S. Ullman
Assistant Professors: Christopher E. Hee, Alan Heezen, David C. Johnson, Mohammad Rafiq, John Remmers, Pedro F. Sanchez, Enoch C. Tse, Richard C. Vile, James R. Walter

The Department of Mathematics administers programs in Mathematics and Computer Science.

The program in mathematics is designed to give majors certain basic courses, insure 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 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 102).
2. The special major available to students on elementary teaching, library science and special education curriculums (see page 102).
3. The applied science curriculum (see page 48).

Students desiring a minor in mathematics may choose from the following alternatives:

1. The regular minor in mathematics (see page 102).
2. The special minor available to students on elementary teaching, library science and special education curriculums (see page 102).

The group major and minor in general science also provide opportunities for incorporating mathematics into a regular program of study (see page 88).

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 64) or a 21-hour minor (see page 64). 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 other 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, and systems programming, as well as such applications areas as numerical analysis and computer graphics. Anticipated courses in operating systems and microprocessors will, when approved, provide additional breadth of training in these important specialties.

GENERAL REQUIREMENTS

1. No student outside the elementary teaching major or minor may receive credit in courses 101, 104, 105, 107, 118 or 119 after credit for 120 has been earned.
2. Students majoring in mathematics or computer science must complete at least five semester hours credit and minors must complete at least three semester hours credit in this department.

3. 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 Department offers graduate work leading to the master's degree in mathematics. For description of graduate courses and programs in the Mathematics Department, please consult the Graduate Catalog.

**COURSES**

**101 Functional Mathematics I.**
Three sem hours
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.

Prereq: 101 Functional Mathematics I.

**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 105 College Algebra or 120 Calculus I.

**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 104 Intermediate Algebra.

**106 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 102 Functional Mathematics II or 110 Algebra for Elementary Teachers or 301 Advanced Topics in Elementary Mathematics.

**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 104 Intermediate Algebra, and one year of plane geometry.

**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: 101 Functional Mathematics I.

**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 104 Intermediate Algebra or equivalent. Students who feel weak in algebra are encouraged to elect 104 Intermediate Algebra or 105 College Algebra first.

**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: 118 Mathematical Analysis for Social Sciences I.

**120 Calculus I.**
Four sem hours
(formerly Calculus with Analytical Geometry I)
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 105 College Algebra first (and in 107 Plane Trigonometry if not taken in high school).

**121 Calculus II.**
Four sem hours
(formerly Calculus with Analytical Geometry II)
Calculus of functions of a single variable continued: additional applications of definite integration to moments, centroids, arc length, surface area, and work. Transcendental functions, infinite series, methods of integration, review of conic sections, and polar coordinates.
Prereq: 120 Calculus I (formerly 120 Calculus with Analytic Geometry I) or equivalent.

**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 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 105 College Algebra first (and in 107 Plane Trigonometry if not taken in high school).

**136 Survey of Computer Science.**
Three sem hours
This course is designed as a survey of computer science for non-specialists who wish to learn the capabilities and applications of digital computers. Topics include "how a computer works," types of programming languages, artificial intelligence simulation, audio and visual communication with computers, statistical information processing and the privacy question. Some programming is included in the course, but it is not a programming course. Those wishing to learn how to program a digital computer should elect 137 Introduction to Computer Programming or 237 Computer Programming and Numeric Methods. Not open to computer science majors.
137 Introduction to Computer Programming. Three sem hours
(formerly 236)
An introductory course in computer programming for both computer science majors and minors and other students wishing to learn programming and applications of digital computers. Students will write and run programs in both the BASIC and FORTRAN languages, in both a time-sharing and batch environment. Practice in developing algorithms and programs for solving a variety of problems.
Prereq: One and one-half years of high school algebra.
(Credit will not be given for more than one of 137 Introduction to Computer Programming, 237 Computer Programming and Numeric Methods, and ORI 215 Computers in Business.)

138 Topics in Computer Science. Three sem hours
Continuation of 137 Introduction to Computer Programming. A survey of several basic concepts in computer science, including high-level languages, systems organization, machine architecture, data structures and simulation.
Prereq: 137 Introduction to Computer Programming or 237 Computer Programming and Numeric Methods.

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: 101 Functional Mathematics I.

• 191, 192, 193 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.

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: 121 Calculus II and 122 Elementary Linear Algebra or equivalent. (122 may be taken concurrently.)

237 Computer Programming and Numeric Methods. Three sem hours
An introduction to computer programming using the BASIC and FORTRAN languages, and applications to the numerical algorithms fundamental to scientific computer work. Discussion of error, polynomial interpolation, numerical integration, solution of systems of linear and nonlinear equations, and ordinary differential equations.
Prereq: 121 Calculus II (formerly 121 Calculus with Analytic Geometry II). (May be taken concurrently.) Credit will not be given for more than one of 137 Introduction to Computer Programming, 237 Computer Programming and Numeric Methods, and ORI 215 Computers in Business.)

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: 137 Introduction to Computer Programming or 237 Computer Programming and Numeric Methods or ORI 316 COBOL Programming.

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: 102 Functional Mathematics II or 110 Algebra for Elementary Teachers or 140 Geometry for Elementary Teachers.

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: 120 Calculus I (formerly 120 Calculus with Analytic Geometry I).

308 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 (Math 308 and Math 408) 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, Math 330 Discrete Mathematical Structures, admittance to program by application only, departmental approval. Graded Credit/No Credit.

• 309 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 (Math 309 and Math 409) 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, Math 223 Multivariable Calculus (Math 221 Calculus with Analytic Geometry IV), admittance to program by application only, departmental approval. Graded Credit/No Credit.

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: 120 Calculus I (formerly 120 Calculus with Analytic Geometry I) and 122 Elementary Linear Algebra.

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: 223 Multivariable Calculus or 221 Calculus with Analytic Geometry IV.

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: 138 Topics in Computer Science and 239 Assembler and Machine Language Programming. (Either one of these may be taken concurrently.)

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.


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.


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.


341 College Geometry. Three sem hours
(A formerly 441)
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: 122 Elementary Linear Algebra

342 Elementary Space-Time Geometry. Two sem hours
(A formerly 446 Synthetic Projective Geometry)
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: 120 Calculus I (formerly 120 Calculus with Analytic Geometry I).

370 Probability and Statistics I. Four sem hours
(B formerly 470 Introduction to Mathematical Statistics I)
Basic concepts of probability: expectation, variance, covariance distribution functions and their application to statistical tests of hypothesis; bivariate, marginal and conditional distributions; treatment of experimental data. Applications to problems in science and/or social science are emphasized.

Prereq: 121 Calculus II (formerly 121 Calculus with Analytic Geometry II) and 122 Elementary Linear Algebra.

381 The Teaching of Mathematics K–6. Three sem hours
Learning to teach children in the elementary grades (K–6) the understandings and processes of mathematics. Attention is focused on learning-teaching situations and effective use of learning aids. Required of all students on early elementary and later elementary curricula. Not open to students on academic probation.

Prereq: 101 Functional Mathematics I and junior standing.

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: 121 Calculus II or 220 Calculus with Analytic Geometry III.

403 Current Research in Elementary School Mathematics.
A brief history of mathematics education, 1890 to present. Special emphasis on important research studies of this period. Consideration of various textbook series, use and evaluation of supplementary materials, the place value of teaching aids. Professional journals will be utilized throughout the course.


408 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 (Math 308 and Math 408) 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: 308 Cooperative Education in Computer Science, admittance to program by application only. departmental approval. Graded Credit/No Credit.

- 409 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 (Math 309 and Math 409) 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: Math 309 Cooperative Education in Mathematics, admittance to program by application only. departmental approval. Graded Credit/No Credit.

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: 121 Calculus II (formerly 121 Calculus with Analytic Geometry II) and 122 Elementary Linear Algebra.

416 Linear Algebra. Three sem hours
(Formerly Elements of Matrices)
Vector spaces, linear transformations, eigenvalues, inner product spaces, principal axis theorem, applications.

Prereq: 121 Calculus II (formerly 121 Calculus with Analytic Geometry II) and 122 Elementary Linear Algebra.
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: 120 Calculus I (formerly 120 Calculus with Analytic Geometry I), 122 Elementary Linear Algebra, 137 Introduction to Computer Programming or permission of the department.

420 Introduction to Analysis. Three sem hours
(formerly Advanced Calculus I)
Real numbers, elementary topology of the real line, sequences and series, continuity, uniform continuity, differentiation, integration, sequences and series of functions.
Prereq: 223 Multivariable Calculus or 221 Calculus with Analytic Geometry IV.

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: 223 Multivariable Calculus or 221 Calculus with Analytic Geometry IV.

430 Compiler Construction. Three sem hours
Prereq: 334 Data Structures and 337 Programming Languages.

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 multiprocessing systems. Addressing techniques, file system design and management. Interprocess communication, design of system modules and interfaces.
Prereq: 334 Data Structures, 337 Programming Languages and 338 Computer Organization.

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.

433 Computer Operating Systems. Three sem hours
Prereq: 334 Data Structures and 338 Computer Organization.

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: 223 Multivariable Calculus or 221 Calculus with Analytic Geometry IV, and 137 Introduction to Computer Programming or permission of the department.

438 Computer Graphics. Three sem hours
Prereq: 334 Data Structures. (338 Computer Organization and 431 Systems Programming recommended.)

471 Probability and Statistics II. Three sem hours
(formerly Mathematical Statistics II)
Nature of statistics: distributions, measure of central value and dispersion; sampling; statistical inference estimation and tests of hypothesis. Methods of computation applications and data analysis will be stressed. Non-parametric statistics; sequential tests, analysis of variance.
Prereq: 223 Multivariable Calculus or 220 Calculus with Analytic Geometry III. 370 Probability and Statistics I, and 137 Introduction to Computer Programming or permission of the department.

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.

491 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.

496 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.

497 Independent Study in Mathematics. One sem hour

498 Independent Study in Mathematics. Two sem hours

499 Independent Study in Mathematics. 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.
MUSIC

Department Head: James B. Hause
Associate Professors: Armand R. Abramson, O. Blaine Ballard, Carter J. Eggers, Rodney, L. Hill, Sylvan S. Kalib, Emily B. Lowe, Dady Mehta, Max E. Plank, Hershal O. Pyle, Robert G. Quayle, Mary Idy Yost
Instructors: Veronica August, Ernest M. Brandon, Paul E. Bravender, Michael Jameson

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 page 106) 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, 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 examinations of their respective departments. Enroll in the beginning music appreciation course. Enroll at the beginning 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 1978-79 academic year on the following days:

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Winter Semester</th>
<th>Spring</th>
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<tbody>
<tr>
<td>November 7, 1978</td>
<td>February 1, 1979</td>
<td>June 20, 1979</td>
</tr>
<tr>
<td>March 30, 1979</td>
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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.

*At this time the question of available financial support makes implementation of the Bachelor of Music Therapy Degree unlikely for 1978-79. Address any inquiries to Dr. James Hause, head of the Music Department, for current information on the program's status.

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

Theory-Literature and History

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.

102 Music Theory-Literature II. Four sem hours

Continuation of Music Theory-Literature I. Prereq: 101 Music Theory-Literature I or examination. For music majors and minors.

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. Attendance required at specified on-campus performances. (Music, Physical Education, Speech and Dramatic Arts Departments).

Prereq: Non-music majors only.

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.

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: 102 Music Theory-Literature II and 252 Functional Piano or their equivalents.

202 Music Theory-Literature IV. Four sem hours

Continuation of Music Theory-Literature III.

Prereq: 201 Music Theory-Literature III.

237 Choral Literature for the School and Church. Two sem hours

A survey course on choral repertoire for the music educator. This course will embrace literature for junior-senior high school, church and community vocal groups. Selected materials for varied groupings will be examined and performed in class.

Prereq: Permission of the department.
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: 202 Music Theory-Literature IV.

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: 301 History of Music.

317 Music Composition. Two sem hours
Original writing and analysis of music, beginning with the smaller forms. May be repeated for credit.
Prereq: 202 Music Theory-Literature IV or permission of the department.

341 Contrapuntal Techniques. Two sem hours
Writing in polyphonic forms with concomitant analysis.
Prereq: 202 Music Theory-Literature IV.

401 Music Theory-Literature V. Two sem hours
Integration of previous studies in theory-literate 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: 301 History of Music.

402 Music Theory-Literature VI. Two sem hours
Continuation of 401 Music Theory-Literature V.
Prereq: 401 Music Theory-Literature V.

413 Orchestration. Two sem hours
Practical work in setting compositions for full orchestra and various other instrumental ensembles.
Prereq: 202 Music Theory-Literature IV.

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

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 with the aim of developing musical skills and understandings. Lecture: two hours per week. Laboratory: one hour period per week.

207 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.

208 Class Piano. Two sem hours
Continuation of 207 Class Piano with emphasis on the functional aspects of piano playing and elementary piano literature. For students not specializing in music.
Prereq: 207 Class Piano or its equivalent.

211 Basic Brass Class. One sem hour
The teaching and playing of trumpet and trombone. Majors and minors only.

212 Brass Class. One sem hour
The teaching and playing of French horn, euphonium and tuba. Majors and minors only.

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: 104 Elements of Music or equivalent.

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.

235 Diction in Singing. Two sem hours
The physiological descriptions and laboratory practice of diction as used in singing.
Prereq: Permission of the department.

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.

261 Basic String Class. One sem hour
The teaching and playing of violin. Majors or minors only.

262 String Class. One sem hour
Continuation of 261 Basic String Class and teaching and playing of viola.
Prereq: 261 Basic String Class.

263 String Class. One sem hour
The teaching and playing of cello and double bass. Majors and minors only.

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.

272 Intermediate Classical Guitar. Two sem hours
Group instruction in classical guitar through the study of standard intermediate methods and repertoire.
Prereq: 271 Beginning Classical Guitar.

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.

281 Basic Woodwind Class. One sem hour
The teaching and playing of clarinet. Majors and minors only.

282 Woodwind Class. One sem hour
The teaching and playing of flute and saxophone. Majors and minors only.

283 Woodwind Class. One sem hour
The teaching and playing of oboe and bassoon. Majors and minors only.
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: 104 Elements of Music and junior standing.

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: 104 Elements of Music or its equivalent.

324 Recreational Music. Two sem hours
To acquaint the recreation major with specific activities, techniques and resources for directing recreational music programs.

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 254 Functional Piano/A22 Voice or completion of A04 Voice/B22 Piano; completion of 202 Music Theory-Literature IV; corequisite 326 Conducting; satisfactory academic record; faculty approval.

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 330 Music Education in the Elementary School. Proficiency in piano and voice required; corequisite 328 Conducting; satisfactory academic record; faculty approval.

332 Instrumental Music in the Public Schools. Four 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.

333 Orchestral Methods. Two 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: 332 Instrumental Music in the Public Schools and junior standing. Open only to instrumental music majors. No students on academic probation.

334 Band Methods. Two 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: 332 Instrumental Music in the Public Schools and junior standing. Open only to instrumental music education majors. No students on academic probation.

492 Student Teaching. Eight sem hours
Admission to student teaching requires satisfactory completion of specified curricula 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.

495 Student Teaching. Four sem hours
See admission requirements under 492 Student Teaching.

496 Student Teaching. Four sem hours
Prereq: 495 Student Teaching.

Music Honors

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 24.)

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:

<table>
<thead>
<tr>
<th>Voice</th>
<th>Harp</th>
<th>Saxophone</th>
<th>Trumpet</th>
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<tbody>
<tr>
<td>Piano</td>
<td>Guitar*</td>
<td>Trumpet</td>
<td>Cornet</td>
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<tr>
<td>Organ</td>
<td>Percussion</td>
<td>Cornet</td>
<td>Trombone</td>
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<tr>
<td>Violin</td>
<td>Flute</td>
<td>Trombone</td>
<td>Euphonium</td>
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<tr>
<td>Viola</td>
<td>Oboe</td>
<td>Trombone</td>
<td>Euphonium</td>
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<tr>
<td>Cello</td>
<td>Bassoon</td>
<td>French Horn</td>
<td>Tuba</td>
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<tr>
<td>String Bass</td>
<td>Clarinet</td>
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Principal Instruments

AMU

100 01-04 level For the student who requires additional preparation in his 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 the 300 01-04 level at the 300 series level. Students are admitted to the 300 series level. Permission to move to 300 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.

All students taking applied music lessons should consult with their music adviser for specific requirements.

Secondary Instruments

AMU

100 01-62 series For music minors. Credit: one hour per semester. May be repeated for credit.

*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.

*252 Functional Piano. One sem hour
Continuation of 251 Functional Piano. Prereq: 251 Functional Piano or its equivalent.

*253 Functional Piano. One sem hour
Continuation of 252 Functional Piano. Stresses keyboard harmony, accompaniment, sight-reading, piano literature and technique. Prereq: 252 Functional Piano or its equivalent.

*254 Functional Piano. One sem hour
Continuation of 253 Functional Piano. Additional accompaniment experience, keyboard harmony, improvisation, piano literature and techniques. Prereq: 253 Functional Piano or its equivalent.

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: 101 and 102 Theory-Literature.

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.

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: 326 Conducting.

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

131 University Choir. One sem hour
An ensemble of advanced singers. Open to all students in the University. Prereq: Permission of the department.

134 University Women’s Chorus. One sem hour
Open to all women students. Prereq: Permission of the department.

135 University Men’s Chorus. One sem hour
Open to all men students. Prereq: Permission of the department.

136 Madrigal Ensemble. One sem hour
Chamber music for mixed voices. Open to all students. Prereq: Permission of the department.

248 Orchestra. One sem hour
Open to all students in the University. Prereq: Permission of the department.

249 Band. One sem hour
Open to all students of the University. Enrollment in 249 Band requires attendance for the entire semester. Students electing 249 Band may also elect Physical Education 140 Marching Band for one credit.

*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.

**Any break in the continuity of Functional Piano courses will require an audition before resumption of study.
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.

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.

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.

448 Opera Workshop. One sem hour
A laboratory-performance course which will deal with the 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.

449 Opera Workshop. Two sem hours
Prereq: Permission
Topics to be selected from the following: piano, organ, vocal and instrumentalists through acquisition of basic skills and repertoire. Course may be repeated for credit.
Prereq: Audition.

451 Vocal and Instrumental Accompanying. Two sem hours
Prereq: Permission
Provides pianists with experience in accompanying singers and instrumentalists through acquisition of basic skills and repertoire. Course may be repeated for credit.
Prereq: Audition.

460 Studies in Pedagogy. Two sem hours
Prereq: Permission
Topics may be selected from the following: piano, organ, voice, vocal diction, brass, woodwinds, strings, theory, literature, percussion or similar subjects. Topics to be offered will be announced in the schedule of classes. May be repeated for credit with permission of adviser.

461 Studies in Performance Literature. Two sem hours
Prereq: Permission
Topics to be selected from the following: piano, organ, vocal repertoire, band, orchestra, choir, solo song, chamber ensemble, opera or similar topics. Topics to be offered will be announced in the schedule of classes. May be repeated for credit with permission of adviser.

140 Marching Band (PEM 140). One sem hour
(See Physical Education)

Small Ensembles

Small ensemble experience for instrumentalists is provided in conjunction with applied music courses. These courses are available to the non-major by permission of the department.

244 Jazz Ensemble. One sem hour
Prereq: Permission of the department
Performance class dealing with the elements of jazz arrangement, improvisation, and ensemble techniques with special emphasis on its function in music education.

245 Brass Ensemble. One sem hour
Chamber music for brass. Open to all students.
Prereq: Permission of the department. Non-major only.

246 String Ensemble. One sem hour
Chamber music for strings. Open to all students.
Prereq: Permission of the department. Non-major only.

247 Woodwind Ensemble. One sem hour
Chamber music for woodwinds. Open to all students.
Prereq: Permission of the department. Non-major only.

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

At this time the question of available financial support makes offering of music therapy courses uncertain for 1978-79. Address any inquiries to James House, Music Department Head, for current information on the program's status.

103 Introduction to Music Therapy. One sem hour
An orientation to music therapy. Introductory survey of music therapy as a career and musical activities to achieve therapeutic goals. Observation of music therapists in hospital, community and school settings.
Prereq: Admission to Music Therapy Program or departmental permission.

303 Psychology of Music I. Two sem hours
The study of learning theories and their application to music. Analysis of the learning process with emphasis on physical, perceptual, psychological, and pedagogical bases.
Prereq: Admission to Music Therapy Programs or departmental permission. sophomore standing, 102 Music Therapy Literature I, 103 Introduction to Music Therapy, and 101 or 102 General Psychology.

304 Psychology of Music II. Two sem hours
Continuation of 303. A study of evaluation and statistical theory. Examination of research on musical aptitude and musical achievement with emphasis on the need for continued research.
Prereq: Admission to Music Therapy Program, 303 Psychology of Music I.

403 Influence of Music on Behavior. Two sem hours
An examination of the physiological and psychological effects of music: includes research, experimental studies and theoretical aspects of the basic principles of music therapy.
Prereq: 404 Psychology of Music II, junior standing and departmental permission.

404 Music in Therapy I. Two sem hours
An examination of the practice and technique of music therapy in the treatment of adults and children concerning mental and/or physical impairments, behavior disorders and geriatrics; includes the study of the role of music therapy in music education and the study of hospital organization.
Prereq: 403 Influence of Music on Behavior.

405 Music in Therapy II. Two sem hours
A continuation of Music 404 with a greater emphasis on the practice of music therapy and observation and visitation in clinical settings.
Prereq: 404 Music in Therapy I.

406 Clinical Training in Music Therapy. One sem hour
Six months in an affiliated psychiatric hospital.
Prereq: Senior standing and completion of all other Music Therapy Curriculum requirements.
PHYSICS AND ASTRONOMY

Department Head: Robert Silver
Professors: James M. Barnes, Walter L. Gessert, Fred T. Johnson, Adolph P. Loeber
Associate Professors: Jean R. Moore, James C. Porter, Richard R. Roth, Clinton E. Thomas, 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 118) and an astronomy minor (see page 54). 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

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.

110 Physical Science I. 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 waves one tunes in to. 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 221-222 or 223-224. This course does not count toward a physics major or minor. Four lectures and one one-hour laboratory session per week.

112 Physical Science II. Four sem hours
A continuation of 110 Physical Science. Continued exploration in lecture and laboratory of methods used by scientists in examining and describing physical phenomena, including: waves in various media, electrical forces and currents, the electromagnetic spectrum, the photon, the electron, the atom, the atomic nucleus. The laboratory will illustrate and exemplify the phenomena and encourage exploration by allowing students to follow a special interest as a project. Four lectures and one laboratory period per week.
Prereq: 110 Physical Science. This course does not count toward a physics major or minor.

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 applications in the environment of the home. Three lecture hours and two laboratory hours per week. This course does not count on a physics major or minor.

140 Light, Color and Photography for Artists and Others.
Four sem hours
This is 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.

196 Special Topics in Physics. 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.

197 Special Topics in Physics. Three sem hours
This course may be used as a continuation of Physics 196 or to permit two different experimental course offerings in a single semester.

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. Three lectures and one two-hour laboratory period per week. This course does not count on a physics major or minor.

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.

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 pre-professional 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 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: 107 Trigonometry and 105 Higher Algebra II, or a “B” average in high school mathematics through trigonometry.

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: 221 Mechanics, Sound and Heat.
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: 120 and 121 Calculus I and II. (121 may be taken concurrently.)

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: 223 Mechanics, Sound and Heat.

229 Strength and Elasticity of Materials. Four sem hours

230 Engineering Dynamics. Four sem hours

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: 222 or 224 Electricity and Light.

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: 270 Introduction to Modern Physics, which may be taken concurrently.

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.

300 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.

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 minor ing in general science or a physical science. Junior standing or permission of the department. Not open to students on academic probation.

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.

400 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: 300 Cooperative Education in Physics. Admittance by application only. Offered on a credit/no credit basis.

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.

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: 224 Electricity and Light, 121 Calculus II.

431 Intermediate Mechanics II. Three sem hours

432 Mechanics Laboratory. One sem hour
A laboratory course providing experimental studies in intermediate mechanics. Three hours of laboratory per week. Prereq: 430 Intermediate Mechanics I.

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: 221 or 223 Mechanics, Sound and Heat, 222 or 224 Electricity and Light, 223 Multivariable Calculus.

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, spectrophotographs and spectra, interference, diffraction and polarization. Prereq: 221 or 223 Mechanics, Sound and Heat, 222 or 224 Electricity and Light, 121 Calculus II.

441 Modern Optics. Three sem hours
A course dealing with those aspects of physical and quan-
tum 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: 440 Optics, 223 Multivariable Calculus.

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: 440 Optics, which may be taken concurrently.

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: 221 or 223 Mechanics, Sound and Heat; 222 or 224 Electricity and Light; 223 Multivariable Calculus.

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 measurements and methods of measuring capacitance and inductance. Laboratory: four consecutive hours, one day per week. Prereq: 221 or 223 Mechanics, Sound and Heat; 222 or 224 Electricity and Light.

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: 221 or 223 Mechanics, Sound and Heat; 222 or 224 Electricity and Light.

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: 221 or 223 Mechanics, Sound and Heat; 222 or 224 Electricity and Light; 223 Multivariable Calculus.

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-Boltzman 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: 224 Electricity and Light; 223 Multivariable Calculus.

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: 221 or 223 Mechanics, Sound and Heat; 222 or 224 Electricity and Light; 121 Calculus II.

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 Schroedinger and Heisenberg equations to elementary systems, Pauli's theory of electron spin. Prereq: 224 Electricity and Light; 223 Multivariable Calculus.

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: 450 Electricity and Magnetism; 475 Introduction to Quantum Mechanics.

481 Mathematical Physics. Three sem hours
Advanced mathematical topics selected for their importance for the physics student, with applications drawn from the field of physics. Vectors, matrices, tensors, partial differential equations, contour integration, calculus of variations, integral equations and transforms, eigen-value functions, perturbation and group theory, special functions. Prereq: 223 Multivariable Calculus; 224 Electricity and Light.

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.

495 Readings in Physics (Honors 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.

ASTRONOMY COURSES

103 Exploration of the Universe. Three sem hours
(formerly 203 Introduction to Astronomy) 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. 104 Astronomical Investigations may be taken concurrently with this course. 103 Exploration of the Universe cannot be applied toward a physics major or minor.
104 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.
Prerequisite: 103 Exploration of the Universe or 205 Principles of Astronomy. 104 may be taken concurrently with either 103 or 205.

205 Principles of Astronomy. Four sem hours
(formerly 304 Introductory Astronomy for Science Students)
An astronomy course for students desiring a comprehensive introduction to astronomy. Topics discussed in 103 Exploration of the Universe are covered in more detail and additional topics are introduced. This course is especially recommended for science students. 104 Astronomical Investigations may be taken concurrently with the course. Not open to students with credit in 103 Exploration of the Universe. This course may count on the 30-hour physics major.

315 Applied Astronomy. Three sem hours
(formerly 403 Practical Astronomy)
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 hours physics major.
Prerequisite: 205 Principles of Astronomy and 120 Calculus I (120 may be taken concurrently).

370 Astronomical Concepts. Three sem hours
(formerly 402 Advanced General Astronomy)
Topics introduced in 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.
Prerequisite: 205 Principles of Astronomy; 223 Mechanics, Sound and Heat; 224 Electricity and Light (may be taken concurrently); 120 Calculus I; 121 Calculus II (may be taken concurrently).

408, 409 Astronomy Project. Two sem hours
This course is designed to serve students of any curriculum who wish to pursue an individualized project in astronomy. Arrangements must be made with an appropriate staff member before registration.
Prerequisite: Permission of the department.
POLITICAL SCIENCE

Department Head: Leonas Sabaliunas
Professors: Benjamin T. Hourani, Marjorie Lansing, James S. Magee, Robert O. McWilliams, Barnabas A. Racz, Samuel R. Solomon
Associate Professors: Thomas L. Brewer, James D. Johnson, Karen E. Lindenberg, Charles M. Monson, James W. Pfister, M. Hisham Sabki
Assistant Professors: Robert C. Grady, David W. Hortin
Instructors: Lewis G. Bender

The Political Science Department offers a major and minor in political science (see page 119) and administers the programs in public administration (see page 120) and in public law and government (see page 122).

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 49 for requirements.

Courses

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.

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.

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, 112 or permission of the department.

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: 112 American Government

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: 112 American Government or 202 State and Local Government.

212 Asian Political Systems. (formerly 374) Three sem hours
A study of the politics and governments of China, Japan, the Mainland Southeast Asian States, Indonesia and India.
Prereq: 112 American Government or 113 American Government (honors) or 202 State and Local Government.

216 Municipal Government. Three sem hours
A study of the forms and functions of municipal government.
Prereq: 112 American Government or 202 State and Local Government.

220 Comparative Legal Systems. Three sem hours
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: 112 American Government or 113 American Government (honors) or 202 State and Local Government.

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: 112 American Government or 202 State and Local Government.

271 Introduction to International Relations. Three sem hours
The fundamentals of great power politics together with the impact of efforts at international organization.
Prereq: 112 American Government or 202 State and Local Government.

279 Individual Studies in Political Science. One sem hour

297 Individual Studies in Political Science. Two sem hours

299 Individual Studies in Political Science. Three sem hours
Approved studies on an individual basis in areas in which the department does not offer formal courses.
Prereq: 112 American Government or 113 American Government (honors) or 202 State and Local Government, and permission of the department.

301 The American Legal System. Three sem hours
Problems of law enforcement in a democratic society. Legal agencies and processes involved in the administration of criminal justice. Arrest, bail, grand juries and indictments, arraignments, prosecution and defense counsel, trials and sentences.
Prereq: 112 American Government.

310 Scope and Methods of Political Science. Three sem hours
The course is designed 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: 112 American Government or 202 State and Local Government.

312 American Constitutional Law I. Three sem hours

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: 112 American Government or 202 State and Local Government.

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: 112 American Government or 113 American Government (honors) or 202 State and Local Government.

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: 112 American Government or 202 State and Local Government.

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: 112 American Government or 202 State and Local Government.

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: 112 American Government or 202 State and Local Government.

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: 112 American Government or 202 State and Local Government.

342 International Organization. Three sem hours
(formerly 441)
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: 112 American Government or 202 State and Local Government.

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: 112 American Government.

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 stressed.
Prereq: 112 American Government.

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: 112 American Government.

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 will be placed on the role of the Communist Party.
Prereq: 112 American Government or 202 State and Local Government.

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: 112 American Government or 202 State and Local Government.

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: 112 American Government.

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 in politics and the development of political parties.
Prereq: 210 Comparative Political Analysis or permission of the department.

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: 211 European Political Systems or permission of the department.

372 Government and Politics of Sub-Saharan 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-Saharan Africa.
Prereq: 211 European Political Systems or permission of the department.

375 Political Sociology. Three sem hours
An analysis of the structure of political systems from an individual and social system perspective.
Prereq: Nine credits in sociology or political science or junior-senior standing.
377 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: 112 American Government.

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: 270 Introduction to Public Administration.

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: 112 American Government or 113 American Government (honors) or 202 State and Local Government.

388 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: 112 American Government or 113 American Government (honors) or 202 State and Local Government.

401 Special Studies in Political Science. 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.
Prereq: Junior standing and political science major or minor.

410 Political Science in Fiction. Three sem hours
(formerly The Political Imagination)
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.

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: 112 American Government.

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: 112 American Government.

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: 112 American Government or 202 State and Local Government.

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: 112 American Government or 202 State and Local Government.

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: 210 Comparative Political Analysis and 270 Introduction to Public Administration or permission of the department.

440 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.

447 Internship in Political Science/Public Administration. Three sem hours

448 Internship in Political Science/Public Administration. Six sem hours

449 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.

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: 112 American Government or 113 American Government (honors).

497 Individual Studies in Political Science. One sem hour

498 Individual Studies in Political Science. Two sem hours

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.
PSYCHOLOGY

Acting Department Head: Monroe P. Friedman

Professors: Robert L. Anderson, Francis M. Canter, Donald E. Jackson, Stuart A. Karabenick, Samuel Karson, Murray Meisels, Jerry O'Dell, Zakhour I. Youssef

Associate Professors: Michael D. Beecher, Dennis Delprato, Barry Fish, Peter A. Holmes, John Knapp, Alida S. Westman

Assistant Professors: Barbara E. Brackney, Jeffrey Dansky, Norman Gordon, Jack Hollis, Wesley Jamison, James Roff, Douglas Schooler

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 120) 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 of study according to the student's individual needs.

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

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 102 General Psychology.

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 101 General Psychology. Includes laboratory: two hours per week.

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: 101 or 102 General Psychology.

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: 101 or 102 General Psychology, and 104 Higher Algebra I, or equivalent.

207 Psychology of Adjustment. Three sem hours

Systematic presentation of issues, concepts, principles and theories in the study of human adjustment. Prereq: 101 or 102 General Psychology.

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: 101 or 102 General Psychology.

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: 101 or 102 General Psychology.

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: 101 or 102 General Psychology.

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: 205 Quantitative Methods in Psychology.

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: 301 Introductory Experimental Psychology.

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: 105 Introductory Sociology, and 101 or 102 General Psychology. Credit can not be earned in both PSY 308 Social Psychology and SOC 308 Social Psychology.

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: 101 or 102 General Psychology.

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: 101 or 102 General Psychology.
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 is placed upon intellectual functioning, socialization and personality, environmental effects and the problems of isolation and institutionalization.
Prereq: 101 or 102 General Psychology.

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: 101 or 102 General Psychology.

340 Psychological Perspectives on Prejudice and Discrimination. Three sem hours
The study of the psychological processes underlying the phenomena of prejudice and discrimination. Primary attention will be given to a review of materials on personality and development as this is relevant to the practice of discrimination and to the experience of prejudice on the part of both minority and majority group individuals.
Prereq: 101 or 102 General Psychology and sophomore.

351 Industrial Psychology. Three sem hours
Applications of psychological methods and principles to industrial problems.
Prereq: 101 or 102 General Psychology and junior or senior.

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: 101 or 102 General Psychology and junior or senior.

356 Motivation. Three sem hours
Review and analysis of research and theory on the determinants of the direction, persistence and vigor of behavior.
Prereq: 301 Introductory Experimental Psychology.

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: 301 Introductory Experimental Psychology.

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, Psychology 205 or equivalent.

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: 101 or 102 General Psychology and junior or senior.

361 Psychotherapy. Three sem hours
A survey of the therapeutic systems and research on psychotherapy.
Prereq: 360 Abnormal Psychology.

365 Methods and Principles of Applied Behavior Analysis. Three sem hours
(Formerly Behavior Modification) Students in psychology, special education, social work, nursing, occupational therapy and related fields are taught behavioral techniques designed for coping with problem behaviors. The course will consist of training in practical observation and recording procedures, program evaluation designs, and behavior change principles.
Prereq: 101 or 102 General Psychology.

370 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: 101 or 102 General Psychology, concurrent enrollment in a three hour psychology class and/or permission of the department.

381 Individual Reading in Psychology. One sem hour

382 Individual Reading in Psychology. Two sem hours

383 Individual Reading in Psychology. Three sem hours
Supervised reading on psychological problems.
Prereq: 101 or 102 General Psychology and prior departmental approval of a planned reading program.

391 Individual Research in Psychology. One sem hour

392 Individual Research in Psychology. Two sem hours

393 Individual Research in Psychology. Three sem hours
Supervised investigation of psychological problems.
Prereq: 205 Quantitative Methods in Psychology and permission of the department.

448 Seminar in Psychology. Two sem hours
Provides an opportunity to synthesize various approaches to the study of psychology. Opportunities are afforded for development, presentation and critical appraisal of individual projects designed by the students. Open to students in their senior year majoring or minoring in psychology.

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: 101 or 102 General Psychology.

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.

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.

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: 301 Introductory Experimental Psychology, and 105 Biology and the Human Species or 222 General Zoology.

458 Comparative Psychology. Three sem hours
An 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: 301 Introductory Experimental Psychology.
SOCIODY

Department Head: Marcello Truzzi
Professors: Werner Einstadter, S. Joseph Fauman, Edward Green
Associate Professors: Patrick Easto, Allen S. Erlich, Lawrence K. Kersten, Gordon E. Moss, Patricia Ryan, Bruce L. Warren, Ira M. Wasserman
Assistant Professors: Kaja Finkler, Marie Richmond-Abbott, Karen P. Sinclair, David W. Stipple, Nancy N. Thalhofer, Ronald M. Westrum

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. See the programs of study earlier in the catalog for requirements.

The Sociology Department offers graduate work leading to the master's degree in sociology. For description of graduate courses and programs in the Sociology Department, please consult the Graduate Catalog.

SOCIODY COURSES

(The requirements for the sociology major and minor are given on page 129.
(The requirements for the criminal justice and criminology curriculum are given on page 67.)

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 family, educational, religious, governmental and economic institutions.

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.

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.

214 Racial and Cultural Minorities. Three sem hours
Racial and cultural minorities in the modern world with particular references to the Negro and to 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.

240 Concepts of Sociology. Three sem hours
A scientific analysis of human behavior in the following areas: distribution and change of population, cross-cultural study of societies and communities, measurement of class behavior, social basis of personality, theory of deviant behavior, communication in small groups, mass communication and public opinion and social change.

250 Elementary Social 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.

300 Current Topics in Sociology. Three sem hours
Each semester offered, 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 towards a major or minor in sociology.

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.

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.

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.

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.

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.

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.
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: 105 Introductory Sociology.

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: 105 Introductory Sociology and sophomore standing.

320 Sociology of Religion. Three sem hours
A sociological analysis of religious organizations and the institution of religion. Emphasis is upon the interaction between religious organizations and other institutions and associations. The role of religion in social movements and social change is stressed.
Prereq: 105 Introductory Sociology or 135 Cultural Anthropology.

334 Population. Three sem hours
Prereq: 105 Introductory Sociology or permission of the department.

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 Anthropology 336.
Prereq: 135 Introduction to Cultural Anthropology or equivalent and sophomore standing. Not open to those with credit in ANT 335.

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 Anthropology 336.
Prereq: 135 Introduction to Cultural Anthropology or equivalent and sophomore standing. Not open to those with credit in ANT 336.

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.

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: 105 Introductory Sociology.

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. Credit cannot be earned in both Political Science 375 Political Sociology and Sociology 375 Political Sociology.

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: 105 Introductory Sociology or 101 General Psychology.

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.

404 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.

405 Social Theory and Social Structure. Three sem hours
A seminar in which selected monographic materials on modern societies and societies in process of modernization will serve as a medium for a synthesis of the field of sociology.
Prereq: Three courses in sociology at 300 level or above and senior standing.

406 Criminology. Three sem hours
The nature and incidence of crime and theories of criminal behavior; crime generating societal processes.
Prereq: 105 Introductory Sociology or junior standing. Not open to freshmen.

407 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: 105 Introductory Sociology or junior standing. Not open to freshmen.

412 Law and Society. Three sem hours
Law as a social and cultural product; the interrelationships between law and social institutions.
Prereq: 105 Introductory Sociology.

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 105 Introductory Sociology or 135 Introduction to Cultural Anthropology.

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: 105 Introductory Sociology.
ANTHROPOLOGY COURSES

(The requirements for the anthropology major and minor are given on page 47.)

135 Introduction to Cultural Anthropology.

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.

Prereq: Permission of the department.

140 Introduction to Prehistoric Anthropology.

The course will investigate the evolution of human societies using materials from primate studies, early man, and archaeological findings.

Prereq: 135 Introduction to Cultural Anthropology.

150 Introductory Archaeology.

(formerly Introduction to Prehistoric Archaeology)

A general survey of the field of archæology, focusing upon the methodologies and analyses employed in the study of prehistoric cultures.

Prereq: 135 Introduction to Cultural Anthropology.

233 Peoples and Cultures of Mexico.

A regional, historical and topical survey of Mexican cultures.

Prereq: 135 Introduction to Cultural Anthropology.

234 Peoples and Cultures of Latin America.

A regional, historical and topical survey of Latin-American cultures.

Prereq: 135 Introduction to Cultural Anthropology.

236 Peoples of Africa.

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: 135 Introduction to Cultural Anthropology.

237 Indians of North America.

A regional, historical and topical survey of aboriginal North American cultures.

Prereq: 135 Introduction to Cultural Anthropology.

238 Ethnographic Survey.

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: 135 Introduction to Cultural Anthropology.

239 Cross-Cultural Study of Illness and Curing.

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: 135 Introduction to Cultural Anthropology or permission of the department.

309 Culture and Personality.

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 Sociology 309.

Prereq: 105 Introductory Sociology or 135 Introduction to Cultural Anthropology and 101 General Psychology. Credit cannot be earned in both Anthropology 309 and Sociology 309 Culture and Personality.

320 Anthropology of Law & Politics.

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: 135 Introduction to Cultural Anthropology and sophomore standing.

333 Current Topics in Anthropology.

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: 135 Introduction to Cultural Anthropology.
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 Sociology 335.
Prereq: 135 Introduction to Cultural Anthropology or equivalent and sophomore standing. Students cannot earn credit in both ANT 335 and SOC 335 the Study of Non-Primitive Societies.

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 Sociology 309.
Prereq: 135 Introduction to Cultural Anthropology or equivalent and sophomore standing. Students cannot earn credit in both ANT 336 and SOC 336 Social and Cultural Change.

338 Anthropology of Religion. Three sem hours
The anthropological study of religious belief and ritual in primitive and peasant societies.
Prereq: 135 Introduction to Cultural Anthropology and sophomore standing.

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: 135 Introduction to Cultural Anthropology and sophomore standing.

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: 135 Introduction to Cultural Anthropology and sophomore standing. English 320 Introduction to Linguistic Science suggested.

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 Sociology 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.

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.

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.

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.

Social Work
The social work courses will be found in the Social Work Program in the College of Human Services on page 247. The Social Work Curriculum and minor are on page 129.
SPEECH AND DRAMATIC ARTS

Department Head: Thomas J. Murray
Professors: George P. Bird, Harry W. Bowen, James W. Gousseff, Parker R. Zellers
Assistant Professors: Dennis M. Beagen, Michele Capparelli, Gary L. Evans, Katherine E. Holkeboer, George E. McCloud, Kenneth W. Stevens

The Department of Speech and Dramatic 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

The majors available in Speech and Dramatic 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 Speech and Dramatic 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 Speech and Dramatic Arts Department offers graduate work leading to the master's degree. For descriptions of graduate courses and programs in the Speech and Dramatic Arts Department, please consult the Graduate Catalog.

SPEECH COURSES

Fundamentals of Speech

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 124 Fundamentals of Speech.

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. It is taught in part through the medium of closed-circuit TV. Not open to students with credit in 121 Fundamentals of Speech.

Communication and Public Address

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: 121 or 124 Fundamentals of Speech.

225 Listening Behavior. Three sem hours The study of the behavior, processes, and theory of human listening; practice in improving listening skills.
Prereq: 121 or 124 Fundamentals of Speech.

226 Non-Verbal Communication. Three sem hours An examination of non-verbal and situational behaviors, relationships, objects and events surrounding speech communication acts.
Prereq: 121 or 124 Fundamentals of Speech.

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.

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.

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: 121 or 124 Fundamentals of Speech.

354 Organizational Communication. Three sem hours An investigation of information patterns and persuasion in the formal organization.
Prereq: 121 or 124 Fundamentals of Speech.

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 are included.
Prereq: 121 or 124 Fundamentals of Speech.
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: 121 or 124 Fundamentals of Speech.

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.

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.

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.

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.

497 Independent Study. One sem hour

498 Independent Study. Two sem hours

499 Independent Study. 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.

166, 266, 366, 466 Forensics. One sem hour each
Students who participate in extracurricular activities may, with the approval of the professor in charge of the activity and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in such activities, and the credits may be earned in one activity or in several activities. Admission to the activity does not insure credit.
Prereq: Permission of the department.

Broadcasting.

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: 121 or 124 Fundamentals of Speech.

141 Introduction to Radio-TV-Film Production. Two 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 insure adequate practical experiences in the operation of studio production facilities.
Prereq: 140 Introduction to Broadcasting and Film or taken concurrently.

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. Both practice and evaluation of announcing types and styles is provided.
Prereq: 140 Introduction to Broadcasting and Film and 141 Introduction to Radio-TV-Film Production or permission of the department.

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 Literature 245.
Prereq: Two courses in literature and 121 or 124 Fundamentals of Speech. Students cannot earn credit in both SPH 245 and LIT 245 Introduction to Film.

331 Fundamentals of Radio Production and Direction. Three sem hours
The basic fundamentals of production, direction and evaluation of both dramatic and non-dramatic radio programs.
Prereq: 140 Introduction to Broadcasting and Film and 141 Introduction to Radio-TV-Film Production or permission of the department.

332 Fundamentals of Television Production and Direction. Three sem hours
The basic fundamentals of production, direction and evaluation of both dramatic and non-dramatic television programs.
Prereq: 140 Introduction to Broadcasting and Film and 141 Introduction to Radio-TV-Film Production or permission of the department.

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: 140 Introduction to Broadcasting and Film and 141 Introduction to Radio-TV-Film Production or permission of the department.

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 132 or SPH 242 prior to enrolling in this course.)
Prereq: 140 Introduction to Broadcasting and Film and 141 Introduction to Radio-TV-Film Production or permission of the department.

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.

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: 140 Introduction to Broadcasting and Film or permission of the department.
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 the production of longer, more complex dramatic and non-dramatic material for radio.
Prereq: 331 Fundamentals of Radio Production and Direction or permission of the department.

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: 332 Fundamentals of Television Production and Direction or permission of the department.

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.)

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: 121 or 124 Fundamentals of Speech or permission of the department.

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.

495 Internship in Radio-Television-Film. One sem hour
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.

165, 265, 365, 465 Broadcasting-TV. One sem hour each
169, 269, 369, 469 Broadcasting-Radio. One sem hour each
Students who participate in extracurricular activities may, with the approval of the professor in charge of the activity and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in such activities, and the credits may be earned in one activity or in several activities. Admission to the activity does not insure credit.
Prereq: 140 Introduction to Broadcasting and Film and 141 Introduction to Radio-TV-Film Production or permission of the department.

132 Interpretative Reading. Three sem hours
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 before the class.
Prereq: 121 or 124 Fundamentals of Speech.

203 Interpretation of Prose. Three sem hours
Deals with 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: 132 Interpretative Reading.

310 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: 132 Interpretative Reading.

314 Interpretation of Drama. Three sem hours
Deals with specific problems involved in interpreting dramatic literature. Emphasis will be 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: 132 Interpretative Reading or permission of the department.

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: 207 Literature for Elementary Grades or departmental major or minor.

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: 132 Interpretative Reading and two courses in literature, one of which should be either 210 Shakespeare or 103 The Reading of Literature: Drama, or permission of the department.

411 Advanced Problems in Interpretation. Three sem hours
Deals with the presentation of programs of some length and difficulty in prose, poetry and drama. Emphasis will be placed 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.

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.

168, 268, 368, 468 Interpretation. One sem hour each
Students who participate in extracurricular activities may, with the approval of the professor in charge of the activity and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in such activities and the credits may be earned in one activity or in several activities. Admission to the activity does not insure credit.
Prereq: 132 Interpretative Reading or permission of the department.
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.

205 Voice and Articulation. Three sem hours
A study of the physical production of speech and the characteristics of American speech sounds and intonation. Emphasis is placed on oral practice to improve individual voice and articulation skills for delivery and performance in the various areas of speech and dramatic arts. Recording and listening laboratory hours arranged. Prereq: 202 Voice Development or permission of the department.

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: 205 Voice and Articulation, or 240 Broadcasting and Film Performance Techniques I, or 242 Fundamentals of Acting, or permission of the department.

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.

400 Phonetics and Dialects of Spoken English. Three sem hours

405 Voice and Dialects. Three sem hours
Advanced projects in preparing oral presentations and characterizations in regional and foreign dialects. Prereq: 102 or 402 Voice Development or 205 Voice and Articulation or permission of the department.

Dramatic Arts Courses

Theatre

101 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.

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. (Music, Physical Education, Speech and Dramatic Arts Depart­ments.)

133 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. This course is designed for non-dramatic arts majors.

135 Play Production. Three sem hours
An introduction to the process of analyzing, directing and staging plays; demonstration and practice. Laboratory hours by arrangement. Prereq: 100 Introduction to Theatre is strongly recommended for departmental majors and minors.

201 Black Theatre: Creative Problems. Three sem hours
A consideration of those creative aspects of the theatre performance particular to the Black Theatre.

234 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 insure adequate practical experience in the scenic arts and crafts. Prereq: 135 Play Production is strongly recommended for departmental majors and minors.

242 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.

335 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: 135 Play Production or permission of the department.

342 Intermediate Acting. Three sem hours
The creation of character and characterization by the actor. Analysis, development and performance of roles studied in depth. Prereq: 242 Fundamentals of Acting or permission of the department.

370 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: 234 Stagecraft, 135 Play Production or permission of the department.
375 Stage Makeup. One sem hour
The theory and techniques of theatrical makeup. Laboratory
hours to be arranged.

376 Stage Lighting. Two sem hours
Stage lighting: historical development, basic electrical the­
ory, switchboards and lighting instruments, color theory,
principles and practices in stage lighting. Laboratory hours
to be arranged.
Prereq: 234 Stagecraft, 135 Play Production or permission of
the department.

377 Stage Costume: History and Theory. Three sem hours
A survey of the principles and practices of stage costuming
from antiquity to the present.
Prereq: 135 Play Production or permission of the department.

378 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: 377 Stage Costume: History and Theory or permis­
son of the department.

385 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 spe­
cial problems of drama for children and for the various
broadcast media also considered.)
Prereq: 135 Play Production or permission of the department.

386 Dramatic Writing. Two sem hours
Intensive concentration on the writing of a significant ex­
ample of adult or children's drama for the stage or the broad­
cast media.
Prereq: 385 Dramatic Composition or permission of the de­
partment.

406 History of the Theatre. Three sem hours
A history of the physical theatre and the written drama from
antiquity to the present. Emphasis on theatre architecture
and stagecraft, including scenery, costumes and lighting.
Prereq: Junior standing or permission of the department.

425, 426, 427, 428 Honors course in Theatre.
One or two sem hours
Individual study and/or research in specialized areas of the­
atre. Open only to dramatic arts majors. Regulations govern­
ing honors courses must be followed (see page 24).

452 Theatre Management. Two sem hours
The materials and procedures of theatrical business manage­
ment, including scheduling, budgeting, accounting, ticket
sales, house management, program editing and public rela­
tions.

496 Seminar in Theatre. Two sem hours
This course is designed to provide the student with oppor­
tunities to explore areas in theatre not covered in the regular
course offerings.
Prereq: Open only to departmental seniors or by permission
of the department.

167, 267, 367, 467 Theatre Practice. One sem hour each
Students participating in specified positions of major re­
sponsibility in the productions of the EMU Theatre, the De­
partment'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: 135 Play Production or 234 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: 167 Theatre Practice and 335 Play Direction.
367—Directing an Experimental Series production. 
Prereq: 167 Theatre Practice and 335 Play Direction. 
467—Additional experience in the responsibilities listed for 367. 
Prereq: 167, 267 or 367.

Drama for the Young

222 Drama and Play in Human Experience. Three sem hours
(formerly The Child and Drama) 
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.

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.

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 are available.
Prereq: 222 Drama and Play in Human Experience or departmental major or minor.

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: 207 Literature for Elementary Grades or departmental major or minor.

422 Independent Study in Drama for the Young. One sem hour

423 Independent Study in Drama for the Young. Two sem hours

424 Independent Study in Drama for the Young. 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.

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 extra-curricular activities may, with the approval of the professor in charge of the activity and the department head, receive one hour of credit in a single activity during one semester. Students may earn up to four hours credit in such activities and the credits may be earned in one activity or in several activities. Admission to the activity does not insure credit.
Prereq: 132 Interpretive Reading or permission of the department.

WOMEN’S STUDIES

Coordinator, Nadean Bishop
Asst. Coordinator, Barbara Brackney

The Women’s Studies Program is designed to introduce students to the contribution of women to the arts, sciences and social sciences, and to give guidance concerning the evolving roles of women and men in contemporary society. Each of the seventeen courses in the program is open to men and women for elective credit. A twenty-hour minor is available as described on page 134 of this catalog.

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. However, descriptions of courses having the Women’s Studies prefix follow:

WMS200 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.

WMS496 Special Topics. Three sem hours
Different subject matter will be taught under this number each semester offered, including interdisciplinary courses in Women’s Studies. Students may take this course 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.

WMS497 Independent Study in Women’s Studies. One sem hour

WMS498 Independent Study in Women’s Studies. Two sem hours

WMS499 Independent Study in Women’s Studies. Three sem hours
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.
COLLEGE OF BUSINESS

COURSE DESCRIPTIONS

Dean: Earl A. Bell

DEPARTMENTS

Accounting and Finance
Administrative Services and Business Education
Management
Marketing
Operations Research and Information Systems
BUSINESS CURRICULUMS

The College of Business provides professional curriculums for students contemplating administrative careers in business, government agencies and public administration, or as business teachers in educational systems. Related public service and research activities are conducted.

DEGREES OFFERED

The University offers the following degrees: Bachelor of Business Administration, Master of Business Administration and the Master of Science in accountancy. Students planning careers in teaching may, through the cooperation of the College of Education, complete requirements for teacher certification and receive the Bachelor of Business Education degree or the Master of Business Education degree.

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. In addition to acquiring academic specialization in business administration, those persons who wish to be teachers of business subjects must complete a prescribed sequence of professional courses in the field of education.

Instructional emphasis is given to mathematical model building, systems analysis, computer application, decision-making simulation and research methodology. 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.

A flexible scheduling program in business is available for students planning employment after one, two or three years of academic study. The program of study includes basic courses in business and economics plus selected professional courses in one area of concentration. Upon successful completion of the program, a Certificate of Achievement is awarded to the student. Credit earned in the program may be applied, where appropriate, to four-year degree programs in business administration, business teacher education, or other degree programs.

GRADUATE PROGRAMS

The College of Business offers graduate work leading to the master's degree in business administration, accounting, computer based information systems, and business education. 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 American Assembly of Collegiate Schools of Business. The college is a member of the National Business Education Association.

Accreditation by the above agencies is based upon 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 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 48 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 campus, or at a coordinated degree-granting branch.

All degree requirements must be completed before the degree will be granted.

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 equivalent junior and senior business courses (300-400 level) completed at community or junior colleges will be granted only upon satisfactory completion of the next advanced course in the series as designated by the appropriate department head, or by passing a comprehensive examination in the course completed at the community or junior college. 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 have the opportunity to plan a career-oriented program of studies which permits specialization in the area of concentration selected. Brief sketches of eleven program areas leading to the bachelor's degree are presented. Details of program requirements are provided in Programs of Study, earlier in this catalog.

Accounting

This program prepares students for careers in public, industrial, governmental and tax accounting, and internal 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.

Administrative Services

This program prepares students for careers in the broad area of administrative services; specific concentrations are
developed for careers as legal assistants, executive secretaries, and office administrators. Courses in this program emphasize the practical aspects of office administration. Career ladders into higher management positions are among the attractions which this program has for many students.

**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 are qualified for employment in business, industry and government as programmer analysts, systems analysts, and related management information systems areas.

**Business Teacher Education**

The Business Teacher Education program will be of special interest to those persons who plan careers as teachers of business subjects in secondary schools and community colleges and as training directors in business and industry rather than seek employment in an operating division of some corporation.

Students completing this program will receive the Bachelor of Business Education degree and will be certified by the State of Michigan to teach courses in secondary schools. Students may qualify for vocational certification in office or in distributive education upon completion of additional requirements.

**Finance**

Students electing the finance major prepare for careers in one or more of the following areas: financial management, investment analysis, and real estate management. 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.

The real estate concentration prepares students for careers in real estate agency management, and commercial and residential property development and management. This area offers one of the newest career fields to business school graduates. A new major in real estate is being developed.

**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 are prepared 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, market 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.

**Shopping Center Management**

The primary objective of the Shopping Center Management program is to prepare students for professional careers in shopping center management and/or shopping center development. Successful careers in this specialized field require expertise in human relations, communication, marketing, finance, risk management, real estate management and law.

The Shopping Center Management program is structured and presented in a manner whereby students will acquire the knowledge, decision-making techniques and on-the-job experience needed to enter and progress in a career in the burgeoning shopping center industry.
DEPARTMENTS
ACCOUNTING AND FINANCE

Department Head: E. A. Devine
Professors: W. Oscar Collins, William L. Kimball, Roderick F. McDonald
Associate Professors: George S. Clark, Tribhowan N. Jain, Herbert M. Kennedy, John W. Keros, John D. Markese, Louis P. Ramsay
Assistant Professors: Fred T. Gilson, Ronald E. Hutchins, Geraldine M. Kruse, H. Lee Schloff
Instructors: Nicholas C. Burns, Michael W. Bush, Maurice G. Marr, Leo A. Ruggle, Jacob R. Strecker

COURSES
Accounting

The accounting major and minor are on page 46.

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.

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 problems that arise in interpreting accounting data.
Prereq: 240 Principles of Accounting.

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 Education majors may substitute this course for 244 Tax Accounting with permission of their department head.)
Prereq: 240 Principles of Accounting or junior standing.

246 Accounting for Public Administrators. Three sem hours
Surveys the use of accounting to manage a public organization. Covers basic accounting principles, program budgeting and the construction of internal control systems.

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: 241 Principles of Accounting.

341 Intermediate Accounting. Three sem hours
Covers capital stock, rights; options and retained earnings; long term liabilities; income tax allocation; long term investments; prior period adjustments; funds flow; price level accounting; consignments; installment sales.

342 Managerial Cost Accounting. Three sem hours
Accounting information for use in planning objectives and in controlling operations. A framework for measuring managerial performance is developed through an analytic treatment of cost behavior under dynamic conditions by employing such devices as cost-volume-profit relationships, flexible budgeting and standards (variances).
Prereq: 241 Principles of Accounting.

343 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, break-even; product pricing; through return on investment methods; divisional income measurement; forecasting with statistical models; capital budgeting; and applications of mathematics to cost accounting problems.
Prereq: 342 Managerial Cost Accounting and 365 Business Statistics I.

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.

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: 241 Principles of Accounting.

348 Practicum in Accounting. Three sem hours
Specialized accounting topics are studied in relation to changes in the practice of accounting and its regulation by government agencies. New teaching methods are encouraged.
Prereq: 341 Intermediate Accounting.

401 Business Internship. Three sem hours
Directed full-time work experience in the accounting phase of a business organization. This course may be repeated once for an additional three hours credit.
Prereq: Permission of the department. Graded credit/no credit. To be used as a free elective only; does not apply on a major or minor.

440 Advanced Accounting. Three sem hours
Covers partnership organization, change, and liquidation; consolidation accounting; fiduciary accounting; introduction to governmental accounting.
Prereq: 341 Intermediate Accounting.

444 Advanced Tax Accounting. Three sem hours
Covers tax law applicable to partnerships and corporations; operation, distributions, reorganization and liquidation.
Prereq: 344 Tax Accounting.

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.

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: 215 Computers in Business and 342 Managerial Cost Accounting or permission of the department.

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: 440 Advanced Accounting.
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
The finance major and minor are on page 86.

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: 241 Principles of Accounting and 105 College Algebra or 118 Mathematical Analysis for Social Sciences I.

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.

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: 350 Principles of Finance.

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: 350 Principles of Finance.

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.

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.

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: 354 Investments or equivalent.

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: 350 Principles of Finance.
Insurance

The insurance major is on page 96.

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.

351 Introduction to Risk and Insurance. Three sem hours
(formerly FIN 351 General Insurance)
An introduction to study of pure risks, risk management and insurance, with emphasis on the application of risk management principles and techniques to 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: 241 Principles of Accounting.

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: 351 Introduction to Risk and Insurance or permission of the department.

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: 351 Introduction to Risk and Insurance or permission of the department.

459 Seminar in Risk Management. Three sem hours
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: 457 Property and Liability Insurance and 458 Life and Health Insurance or permission of the department.

Real Estate

210 Real Estate Principles and Practices. Three sem hours
(formerly FIN 352)
Survey of real estate law, finance, appraising, brokerage, and investments, including ownership interests, contracts, and open housing laws.

• 220 Real Estate Brokerage. Three sem hours
Contact, form-selling techniques, office location and design, civic leadership, laws of agency, listing dialogue, effective advertising, overcoming buyers and sellers' objections, closing statements.

• 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: 210 Real Estate Principles and Practices.

• 330 Real Estate Management. Three sem hours
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: 210 Real Estate Principles and Practices.

• 410 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: 320 Real Estate Appraisal and FIN 350 Principles of Finance or permission of the department.

455 Property Development and Management. Three sem hours
(formerly Finance 455)
Market analysis and planning for land developments for various types of uses: residential, campus, civic centers, resorts, mobile home parks, offices, professional offices, housing for the elderly, urban renewal, shopping centers.
Prereq: 310 Real Estate Finance.
ADMINISTRATIVE SERVICES AND BUSINESS EDUCATION

Department Head: Robert A. Ristau
Professors: Charles H. Duncan, Robert I. Hislop, Russell L. Ogden, Mary F. Robek, Rosetta Wingo
Associate Professors: I. Normajean Anderson, Thomas M. Johnson, Albert W. Belskus
Assistant Professors: Thomas Broder, Robert W. Morgan, Daryl Negendank, Gary M. Victor

The Administrative Services and Business Education Department offers courses in the following areas:
1. business administration
2. personal business development
3. business teacher education
4. word processing competencies
5. legal studies

Professional programs within this department lead to a variety of business and teaching careers. Students earn either the Bachelor of Business Administration with an Administrative Services major, concentrating as a legal assistant, office administrator, or executive secretary (page 46) or the Bachelor of Business Education degree (page 59).

A Flexible Program Concept (FPC) is available to those students who wish to pursue a less-than-four-year degree program. This flexible program concept permits a student to work out an individualized study program in cooperation with an assigned adviser from the department or college. Programs leading to early employment through the FPC will be based on an established basic core of subjects, plus those courses which suit the individual's background and career objective. Upon the successful completion of the individually designed program (FPC), the student should be ready for employment in the chosen career area and will be awarded a special Department Certificate of Accomplishment. See page 61 for additional information.

BUSINESS EDUCATION COURSES

Word Processing and Office Communication Competencies

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.

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: 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.

122 Office Simulation. Four sem hours
(Formerly Office Services)
Using the typewriter as a technical tool in the preparation of governmental, legal, medical and financial reports and stressing the use of such auxiliary equipment as ink, spirit and offset duplicators, voice transcribers and mimeoscopes. Lab fee required.
Prereq: 121 Typewriting Applications or equivalent.

223 Forkner Shorthand System. Three sem hours
Introduction to theory of Forkner shorthand. Development of skill in taking dictation in and transcribing for personal or business use.
Prereq: 121 Typewriting Applications or equivalent.

224 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.

225 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: 223 Forkner Shorthand or 225 Gregg Shorthand or the completion of a course in the theory of an alternative shorthand system.

226 Shorthand Speedbuilding. Three sem hours
Extended speed dictation including specialized business and professional vocabularies. Emphasis on a correct transcript including punctuation and spelling.
Prereq: 226 Shorthand Dictation or one and one-half years of high school shorthand and a typewriting speed of 50 net words per minute.

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: 227 Shorthand Speedbuilding, or a measured speed of 80 wpm or more in one of the shorthand systems.

Business Teacher Education

364 Methods of Teaching General Business Subjects. Two sem hours
Methods in teaching bookkeeping, general business and business law with application to classroom situations. Emphasis on objectives, lesson planning, techniques of teaching and sources of materials.
Prereq: 302 Educational Psychology. A "C" average in all business subjects taken at Eastern Michigan University is required before enrollment, with no academic probation.
365 Methods of Teaching Secretarial Subjects. Two sem hours
Methods of teaching typewriting, shorthand or office practice with applications to classroom situations. Emphasis on objectives, lesson planning, techniques of teaching and sources of materials.
Prereq: 302 Educational Psychology. A “C” average in all business subjects taken at Eastern Michigan University is required before enrollment, with no academic probation.

366 Methods and Materials in Teaching Distributive Education. Two sem hours
Techniques and practices utilized in teaching distributive education in secondary schools, community colleges and in adult evening schools.
P r e q: 302 Educational Psychology. A “C” average in all business subjects taken at Eastern Michigan University is required before enrollment, with no academic probation.

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 permission from the department.

497 Independent Study. One sem hour

498 Independent Study. Two sem hours

499 Independent Study. Three sem hours
Students pursue some special area of study or experimentation under the direction of a designated faculty member from the Administrative Services and Business Education Department.
Prereq: Permission of the department.

ADMINISTRATIVE SERVICES COURSES

100 Business Enterprise: Theory and Practice. 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.

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.

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 business and non-business majors.

308 Personal Finance. Three sem hours
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.

326 Secretarial Procedures. Three sem hours
Prereq: 121 Typing Applications or equivalent.

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.

401 Business Internship. One sem hour
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.

415 Records Administration. Two sem hours
A study of management methodology in records, control, costs, protection, retention, retrieval and disposal. Emphasizes records administration as a management tool.
Prereq: 395 Office Administration.

497 Directed Study. One sem hour

498 Directed Study. Two sem hours

499 Directed Study. Three sem hours
Students pursue some special area of study or experimentation under the direction of a designated faculty member from the Administrative Services and Business Education Department.
Prereq: Permission of the department.

Legal Studies

• 214 Consumer Law. Three sem hours
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, real estate transactions.

303 Legal Environment of Business. Three sem hours
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.
Prereq: Junior standing or permission of the department.

304 Law of Business Enterprises. Three sem hours
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: 303 Legal Environment of Business or department permission.
403 Labor Law. Three sem hours
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: 303 Legal Environment of Business.

408 Administrative Law. Three sem hours
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.

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: 303 Legal Environment of Business.

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: 303 Legal Environment of Business

413 Legal Research. Three sem hours
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.

455 Real Estate Law. Three sem hours
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: 303 Legal Environment of Business or RES 210 Real Estate Principles and Practices.
MANAGEMENT

Department Head: Claude I. Shell
Professors: Leland Brown, Floyd A. Patrick
Associate Professors: James H. Conley, Jagdish T. Danak, Charles F. Hoitash, Donald W. Magoon, Robert C. McCoy, W. Robert Sampson
Assistant Professors: Nicholas J. Beltsos, Douglas D. Cantrell, Robert P. Crowner, John D. Eveland.
Instructor: Mary E. Vielhaber

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 100) 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 87) for the student who does not wish to specialize in one functional area of business. In either major programs can tailored for general management and for executive development of the person currently employed. There are also minors available in each area.

COURSES

* 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 382 Principles of Management; does not apply toward management major or minor.)

302 Business Communications. Three sem hours
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: Junior standing or permission of the department.

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 is taught with emphasis on the production concepts as illustrative of management practices generally applicable to all managerial or administrative activities.
Prereq: 201 Principles of Economics.

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 manpower utilization.
Prereq: 382 Introduction to Management or permission of the department.

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: 382 Introduction to Management.

399 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 will be placed on the role of the small firm in the national economy, the managerial considerations involved in establishing such a venture and the managerial problems confronting the entrepreneur.

401 Management Internship. Three sem hours
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).

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: 302 Business Communication.

400 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 permission of the department.

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: 384 Personnel Administration and 386 Organization Theory and Development or permission of the department.

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: 384 Personnel Administration and 386 Organization Theory and Development or permission of the department.

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: 384 Personnel Administration or permission of the department.
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: 386 Organization Theory and Development or permission of the department.

487 Current Issues in Personnel.
Three sem hours
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: 384 Personnel Administration or permission of the department.

489 Comparative Management Systems.
Three sem hours
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: 386 Organization Theory and Development and senior standing or permission of the department.

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).

497, 498, 499 Independent Study.
One, two and 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.

MARKETING

Department Head: David L. Kurtz
Professors: Earl A. Roth, A. Edward Spitz, Robert J. Williams
Associate Professors: Joseph L. Braden, Raymond J. Drake, Colin F. Neuhaus
Assistant Professors: Charles R. Ashton, Ralph L. Harris, Ralph B. Weller

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 101). The department now also offers a major in Shopping Center Management (see page 127).

COURSES

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.

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.

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: 360 Principles of Marketing.

364 Distribution Systems. Three sem hours
Marketing organization through alternative channels of distribution. Emphasis is given to distribution system design, distribution costs, decision theory in channel choice and relations between microunits within the system. Prereq: 360 Principles of Marketing.

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: 360 Principles of Marketing and 101 General Psychology.

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: 360 Principles of Marketing.
369 Advertising. Three sem hours
In this course, 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.

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: 360 Principles of Marketing.

401 Internship Program. Three sem hours
Directed full-time work experience in the marketing phase of a business organization.
Prereq: Marketing major and permission of the department.

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 price, promotion, and distribution policies: and international marketing environments.
Prereq: 368 Marketing Strategy or 501 Marketing or the equivalent.

461 Sales Management. Three sem hours
Planning, organizing, directing, and controlling the sales force. Includes recruiting, selecting, training, evaluating, compensating, and supervising salesmen.
Prereq: 360 Principles of Marketing.

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: 365 Business Statistics I.

472 International Business. Three sem hours
Analysis of the global economic, political, cultural and geographic environments and their impact on market entry. Strategies of multinational firms: and survey of changes in marketing, finance, personnel and production policies resulting from international environmental differences.
Prereq: 360 Principles of Marketing.

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: 360 Principles of Marketing.

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: 369 Advertising.

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: Senior standing.

476 Shopping Center Seminar. Three sem hours
Selected programs in shopping center development and management will be analyzed with emphasis on management, operations and promotion. Typical problems to be considered are in the areas of record keeping, leasing, expansion, maintenance, cost analysis, merchants associations and promotion planning.
Prereq: Senior standing in the Shopping Center Management Program.

478 Practicum in Marketing. Three sem hours
The purpose of this 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.

479 Senior Honors Program. Three sem hours
A research and reading course for students majoring in marketing with senior standing.
Prereq: 470 Marketing Research, cumulative grade-point average of 3.0 and permission of the department.

497, 498, 499 Independent Study. One, two and 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.
OPERATIONS RESEARCH AND INFORMATION SYSTEMS

Department Head: Robert H. Holland
Associate Professors: Sergio Antiochia, Asad S. Khailany,
Fathi Sokkar, Nesa L. Wu, Kenneth C. Young
Assistant Professors: Richard J. Coppins, Roger C. Gledhill
Instructor: Charles Saxon

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 3/4) and may complete electives in Management Science and Production Systems Analysis.

A new major and minor has been developed in Production Systems Analysis, described on page 119. Students may also choose courses to meet elective requirements.

COURSES

118 Mathematical Analysis for Social Sciences I. Three sem hours
(See Department of Mathematics).

119 Mathematical Analysis for Social Sciences II. Three sem hours
(See Department of Mathematics).

215 Computers in Business. Three sem hours
Basic elements of computer hardware, software, programming and the use of the computer in business data processing and decision-making. Students will develop and execute a number of programs using the Fortran programming language. Prereq: 118 Mathematical Analysis for Social Science I. Credit will not be given for both 215 Computers in Business and Mathematics 137 Introduction to Computer Programming. Students must complete this course by the end of their sophomore year.

316 COBOL Programming. Three sem hours
(formerly Programming of Business Information Systems)
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: 215 Computers in Business.

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 will analyze and program several simulation models using GPSS and other programming languages. Prereq: 215 Computers in Business and 365 Business Statistics I.

365 Business Statistics I. Three sem hours
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: Junior standing and 119 Mathematical Analysis for Social Sciences II.

367 Computer Augmented Statistics. Three sem hours
This course requires the use of the computer to aid and augment the study of statistical concepts. Emphasis in the social science area will be to learn not only 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. For non-business majors only.

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: 382 Introduction to Management. Not open to ORIS majors.

394 Introduction to Production Management. Three sem hours
An examination of the major design, operation, and control problems of production management. Topics include process planning, facilities layout, plant location, work measurement, wage incentive plans, master scheduling, job sequencing, purchasing, inventory control and quality control. The major emphasis is on developing analytical and interpretive skills in analyzing problems, using concepts and methods from economics, management science and behavioral management. Interfaces between production management and other functional areas in the organization are discussed. Prereq: 365 Business Statistics I and 382 Introduction to Management.

400 FORTRAN Programming Language. One sem hour
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.

401 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.

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 are also covered. 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: 316 COBOL Programming or permission of the department.

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 por-
tions of the systems, and large and small operating systems to be considered for the business environment.
Prereq: 317 System Simulation

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.

418 Operations Research. Three sem hours
This course discusses the development of various deterministic 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 Markov models. Software packages and computer-based decision models will be considered in the solution procedure of the above models.

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: 215 Computers in Business and 316 COBOL Programming

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: 316 COBOL Programming

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: 215 Computers in Business and 382 Introduction to Management or equivalent.

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.

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: 215 Computers in Business or equivalent. Credit can be earned only by non-business undergraduate majors or by graduate students meeting a programming language requirement.

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: 365 Business Statistics I.

• 491 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: 418 Introduction to Operations Research.

• 492 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: 418 Introduction to Operations Research.

• 493 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: 418 Introduction to Operations Research.

497, 498, 499 Independent Study. One, two and 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.
COLLEGE OF EDUCATION

COURSE DESCRIPTIONS

DEAN: John D. Mulhern
Associate Dean: Jose R. Llanes

DEPARTMENTS
Curriculum and Instruction
Educational Leadership
Educational Psychology
Guidance and Counseling
Health, Physical Education,
Recreation and Dance
Social Foundations of Education
Special Education
CURRICULUMS FOR TEACHERS

The College of Education is comprised of the Departments of Educational Leadership; Educational Psychology; Curriculum and Instruction; Guidance and Counseling; Health, Physical Education, Recreation, and Dance; Social Foundations of Education; Special Education; and the Offices of Educational Leadership; Educational Psychology; Guidance and Counseling; and Special Education. This includes all strictly educational courses (Group IV courses) is based upon the following requirements:

1. 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 Admissions and Pre-Student Teaching Office in Boone Hall.

Arrangements for attending an orientation session should be made at the time of application. These orientation sessions, scheduled several times during the first two weeks of each semester and less frequently at other times, provide students with information about teacher preparation at EMU, the role of pre-student teaching in the programs, pre-student teaching procedures, opportunities to work with children and youth, and the state of the profession. Opportunities are also provided for questions and answers.

2. 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 curriculum is being 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 academic, financial, moral, social and other obligations, and the extent to which he practices good citizenship among his fellow students.
6. 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 a Group IV Professional Education course offered by the following departments or divisions within the College of Education: Curriculum and Instruction; Social Foundations of Education; Student Teaching; Educational Psychology; 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 100 Introduction to University Study, 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.

3. Pre-Student Teaching Requirement

Two twenty-four hour laboratory experiences (pre-student teaching) are required of all candidates for a teaching certificate. The primary purpose of requiring such experiences is to enable students to understand more thoroughly the college course work dealing with human growth and development, the nature of the learning-teaching process and the societal context within which the school operates. Though it is not always possible, the experiences are most valuable as an integral part of certain education courses and are supervised, either directly or indirectly, by class instructors. These experiences also help the student to better understand himself if he is really capable of working with children or youth, in what specialty and at what teaching level he can best function, and what knowledge, skills and attitudes he needs to develop before beginning student teaching.

There are opportunities available for pre-student teaching through school noon-hour and after school recreation programs, in Boy's Clubs, Boy Scouts, Girl Scouts, YMCA and
YWCA, hospitals, community centers, church youth groups, day care centers and in nursery schools. Other activities include tutoring, and school camping programs. The greatest number of opportunities and assignments, however, are in the regular classrooms of K–12 schools.

Majors in speech correction, emotionally impaired and physically impaired should consult their advisers or the Pre-Student Teaching Office concerning overlapping “pre-clinical” requirements.

Pre-Student Teaching may not be completed prior to enrollment in Human Growth and Development or Educational Psychology, and the activity selected must be approved by the instructor of one of those courses, by the instructor of School and Society or Principles of Teaching, or by the director of Pre-Student Teaching. Procedures for obtaining an assignment and recording the experience are explained in the orientation session.

STUDENT TEACHING

Director, Kenneth W. Stanley

All candidates for teaching certificates in early elementary, later elementary, secondary and special all-grade programs are required to fulfill a student teaching requirement of eight semester credit hours in the area of their academic preparation and at the level for which teacher certification is being recommended. The sequence of student teaching courses will be determined by the curriculum pursued.

All candidates for teaching certificates in Special Education areas are required to fulfill student teaching requirement of four semester credit hours with normal children prior to undertaking an assignment in the specialty. In addition, they are required to fulfill a student teaching requirement of four to eight semester credit hours in the specialty area. Refer to the specific curriculum areas for the precise credit hour requirement.

Whenever possible the Student Teaching Office will attempt to accommodate a student’s request for preferred student teaching placement. However, this is not always possible. 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 districts cooperating with Eastern Michigan University in the student teaching program. When students wish to be placed in a district outside the list of Eastern Michigan University cooperating districts, the Student Teaching Office will assist them in making arrangements to enroll for student teaching credit through one of the other accredited institutions in Michigan. When students wish to be placed in a district outside of Michigan, it is their responsibility to apply to an NCATE accredited institution in that location. The Student Teaching Office will verify to the other institution a student’s eligibility.

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 at Eastern Michigan University. Students granted guest student status for student teaching are expected to have fulfilled all prerequisites required for student teaching at the home institution.

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. No student will be assigned to student teaching whose grade point average is less than 2.0 (below “C” average).
3. The student must enroll in the appropriate student teaching course. See page 225 in this catalog for a description of these courses.
4. Placement in the summer session student teaching program is made only for those students who are experienced teachers.
5. The student must be at least a second semester junior in order to apply for student teaching.
6. 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 and be recommended by the Academic Services Center.
7. 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.
8. When students are doing student teaching, they should so arrange their daily schedule that teaching will take precedence over other interests and duties.
9. Conferences are designed for the assistance of student teachers. Students are expected to attend the student teacher assemblies as called and to have conferences with their cooperating teachers and university supervisors.
10. The following prerequisites are to be completed prior to student teaching:
   a. EDP 302 Educational Psychology and CUR 303 Principles of Teaching or EDP 320 Human Growth and Development and CUR 326 School and Society.
   b. Early Elementary: Two of the specific methods courses (CUR 310 Teaching of Reading, MTH 381 Teaching of Mathematics or ESC 203 Science for the Elementary Teacher).
   d. Junior-Senior High School: A special methods course in the major or minor field.
   e. 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 placement in the following fall semester; June 15 for placement in the following winter semester; February 15 for placement in the following spring session; and June 1 for placement in the summer session. 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 teach. However, placement priority is given to those students who file in accordance with the deadline dates. The Student Teaching Office may not be able to place late applicants.
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.

DEPARTMENTS

Unless otherwise designated, the courses in these departments are classified in Group IV. The Group IV courses listed in the 300 and 400 series 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 206 Mental Hygiene, 302 Educational Psychology, and 320 Human Growth and Development may be taken by students of sophomore standing.

CURRICULUM AND INSTRUCTION

Department Head: W. Scott Westerman, Jr.
Assistant Professors: Leah D. Adams, Gordon A. Belt, Clifford Birselen, Henry F. Corbacho, Juanita M. Garfield, Hiebert M. Jones, Noel S. Moore, Leon E. Neeb, Jerome A. Weiser.


The Curriculum and Instruction Department provides courses in orientation to education, reading, school and society, methods, driver education, student teaching, and educational media (library science). For a description of educational media requirements see page 99.

GRADUATE STUDY

The Curriculum and Instruction Department offers graduate work leading to the master's degree in elementary education, middle school/junior high, secondary school teaching, secondary school curriculum, and reading. For descriptions of graduate courses and programs in the Curriculum and Instruction Department, please consult the Graduate Catalog.

COURSES

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.

207 Introduction to Children’s Literature. Three sem hours
[For description see Department of English Language and Literature.]

303 Principles of Teaching. Three sem hours
To be taken in the semester immediately preceding teaching. Deals with the application of the principles of psychology and teaching to the classroom. Diagnosing, planning, teaching and maintaining favorable working conditions in teaching will be considered.
Prereq: 302 Educational Psychology, 321 Child Psychology or 320 Human Growth and Development. Not open to students on early elementary or junior-senior high school curriculums.

306 Teaching of High School Mathematics. Three sem hours
[For description see Department of Mathematics.]

307 The Teaching of Speech. Three sem hours
[For description see Department of Speech and Dramatic Arts.]

308 High School English. Three sem hours
[For description see Department of English Language and Literature.]
310 **The Teaching of Reading.** Three sem hours
Required of all 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.

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.

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.

325 **Methods of Teaching the Physical Sciences.** Three sem hours
(For description see Physics and Astronomy Department.)

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.
Prereq: 320 Human Growth and Development.

327 **Multi-cultural Practicum.** Five sem hours
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. Replaces 326 School and Society for those on the Bilingual-bicultural program.
Prereq: 75 hours of field experience involved.

330 **Music Education in the Elementary School.** Three sem hours
(For description see Department of Music.)

331 **Music Education in the Secondary School.** Three sem hours
(For description see Department of Music.)

332 **Instrumental Music in the Public Schools.** Four sem hours
(For description see Department of Music.)

333 **Orchestral Methods.** Two sem hours
(For description see Department of Music.)

334 **Band Methods.** Two sem hours
(For description see Department of Music.)

347 **Teaching Earth Science.** Three sem hours
(For description see Department of Geography and Geology.)

348 **Teaching Social Studies in Elementary Schools.** Three sem hours
(For description see Department of Geography and Geology.)
354 Methods and Materials in the Teaching of Dance.  
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.  

364 Methods of Teaching General Business Subjects.  
(For description see Department of Administrative Services and Business Education.)  

365 Methods of Teaching Secretarial Subjects.  
(For description see Department of Administrative Services and Business Education.)  

366 Methods and Materials in Teaching Distributive Education.  
(For description see Department of Administrative Services and Business Education.)  

367 Methods and Materials in Physical Education.  
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.  

370 Resources in Teaching Home Economics Education.  
(For description see Department of Home Economics.)  

371 Methods and Materials in Home Economics Education.  
(For description see Department of Home Economics.)  

375 Resources in Teaching Family Life Education.  
(For description see Department of Home Economics.)  

381 The Teaching of Mathematics K–6.  
(For description see Department of Mathematics.)  

400 Special Topics.  
Two sem hours  
A course which can be offered on an experimental basis for one semester for purposes of meeting special needs and/or innovations.  

403 Current Research in Elementary School Mathematics.  
(For description see Department of Mathematics.)  

404 Methods and Materials for Teaching Biology.  
(For description see Department of Biology.)  

411 Methods of Teaching Modern Languages.  
(For description see Department of Foreign Languages and Literature.)  

412 Methods of Teaching Modern Languages in the Elementary Grades.  
(For description see Department of Foreign Languages and Literature.)  

415 Directed Observation.  
Two sem hours  
Summer session on demand.  

416 Art Methods and Materials.  
(For description see Department of Art.)  

417 Teaching of Art.  
(For description see Department of Art.)  

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.  

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.  

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: 419 Instructor’s Course in Driver Education.  

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: 419 Instructor’s Course in Driver Education.  

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: 302 Educational Psychology.  

461 The Teaching of Industrial Education.  
Two sem hours  
(For description see Department of Industrial Technology and Industrial Education.)  

481 The Teaching of Social Studies.  
Three sem hours  
(For description see the Department of History and Philosophy.)  

490–491 Special Work [Honors Courses].  
Two sem hours each  
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 24. Permission of the department head is required.  

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: 326 School and Society or 303 Principles of Teaching. Requirements for student teaching (see page 221). Requirements for admission to courses in education (see page 220), plus prerequisites as follows in designated curriculums:

a. Early Elementary: Two of the methods courses. (310 Teaching of Reading, 381 Teaching of Mathematics, or 203 Science for the Elementary School Teacher.)

b. Later Elementary: Three of the methods courses. (310 Teaching of Reading, 381 Teaching of Mathematics, 203 Science for the Elementary School Teacher or 348 Teaching Social Studies in the elementary School.)

c. Junior-Senior High School: A special methods course in major or minor field.

d. 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.

493 Student Teaching. Two sem hours
For experienced teachers attending the summer session. Permission of director of student teaching is required.

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.

495 Student Teaching. Four sem hours
Permission of director of student teaching required.

496 Student Teaching. Four sem hours
Prereq: 495 Student Teaching and permission of director of student teaching.

497 Student Teaching. Four sem hours
Prereq: Credit toward certification in either 495 or 496 Student Teaching.

498 Student Teaching. Five sem hours
Approval of Coordinating Council on Professional Education required.

499 Student Teaching. Six sem hours
Approval of Coordinating Council on Professional Education required.

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 on page 99.

All courses listed as library science count toward certification for school library work. With the exception of 344 Audio-Visual Methods, none of the courses may be taken for professional education credit.

All courses, except 405 Organization of Materials, are open as electives to all students in the University.

Degree-only students take either minor or major without 496 Student Teaching (Library Practice).

COURSES

101 Use of Books and Libraries. Two sem hours (Group III)
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.

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.

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.

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.
Prereq: 303 Principles of Teaching or equivalent.

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.

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.

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: 320 The Media Center in the School and 404 Selection and Use of Materials.

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.

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.

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: 404 Selection and Use of Materials, 405 Organization of Materials and the permission of the department.
EDUCATIONAL LEADERSHIP

Department Head: Kenneth Grinstead
Professors: George J. Brower, Francis M. Daly, Elven E. Duvall, Bruce K. Nelson, Jack D. Minzey
Assistant Professors: Kenneth L. Deal
Associate Professors: Doris Kilanski, William F. Kromer

GRADUATE STUDY

The Educational Leadership Department offers graduate work leading to the master's and specialist's degrees in educational administration. For descriptions of graduate courses and programs in the Educational Leadership Department, please consult the Graduate Catalog. Qualified senior students may enroll in graduate courses for undergraduate or graduate credit.

400 Special Topics. Two sem hours

401 Special Topics. 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.

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.

EDUCATIONAL PSYCHOLOGY

Department Head: Wilbur A. Williams
Professors: Eugene E. Haddan, Wallace D. LaBenne, Everett L. Marshall, Israel Woronoff
Associate Professors: John R. Blair, James T. Bushey, Marie Dellas, Louise F. Jernigan, Edward Lederman, Judy A. McKee, John W. Metler, Kishor N. Wahi, Warren S. Williams
Assistant Professor: Mildred Kaminsky

GRADUATE STUDY

The Educational Psychology Department offers graduate work leading to the master's degree in educational psychology and the specialist's degree in school psychology. For descriptions of graduate courses and programs in the Educational Psychology Department, please consult the Graduate Catalog.

COURSES

100 Introduction to University Studies. Three sem hours

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.

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: 101 or 102 General Psychology.

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.

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: 101 or 102 General Psychology. Not open to students in early elementary or junior-senior high school curriculums.

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 302 Educational Psychology or 321 Child Psychology.

Prereq: 101 or 102 General Psychology.

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.

Prereq: 302 Educational Psychology or 320 Human Growth and Development for Teacher Education students; 101 General Psychology and junior standing for other students.

400 Special Topics. Two sem hours

401 Special Topics. 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.

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: 302 Educational Psychology.

497 Independent Study. One sem hour

498 Independent Study. Two sem hours

499 Independent Study. 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.
GUIDANCE AND COUNSELING

Department Head: John G. Pappas
Professors: Winton A. Kloosterman, Herbert O. Tothill, Benjamin W. Van Riper
Associate Professors: Paul A. Nau, Kenneth W. Stanley, Louis C. Thayer, John W. Waidley
Assistant Professors: Kent D. Beeler, Hugh P. Gaston

Students who wish to enter university programs in guidance and counseling are reminded that these are graduate level programs. The only regularly offered undergraduate courses in this area, described below, concentrate on basic guidance concepts and processes. As such they are of value to teachers and to persons pursuing careers in other helping professions.

GRADUATE STUDY

Graduate study in the Department of Guidance and Counseling is concerned with the professional preparation of elementary and secondary school counselors and personnel workers in colleges, community agencies and employment settings. Introductory courses in this area also provide classroom teachers and graduate students in related fields with an understanding of guidance concepts and practices. For a description of courses and programs in guidance and counseling please consult the Graduate Catalog.

COURSES

400 Special Topics. Two sem hours
401 Special Topics. 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.

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: 303 Principles of Teaching or 326 School and Society; non-education majors by permission of adviser.
HEALTH, PHYSICAL EDUCATION, RECREATION AND DANCE

Department Head: Patric L. Cavanaugh
Professors: John R. Adams, Marvin J. Johnson, Elizabeth A. Menzi, John E. Sheard, Peggy A. Steig, Roger L. Williams
Associate Professors: Mary I. Bell, Jeannine M. Galetti, Mary A. Green, Marguerite E. Grills, Erik J. Pedersen, Fred Trosko, Robert J. Willoughby, Charles X. Witten, Myrna A. Yeakle
Instructors: Margaret E. Bell, Linda Hemmelgarn, Sarah Martens, Da-i Ping, Catharine Plavcan, Harold E. Simons, 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

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.

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.

150 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.

250 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.
Prereq: 150 Scientific Foundations in Health.

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 PED 330.

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 student becomes acquainted with the dynamic role he will have in secondary education as a health educator. Not open to students with credit in PED 320.

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.
Prereq: 101 or 102 General Psychology.

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.

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: 320 Health Education in the Elementary Grades or 330 Health Work in Schools.

PHYSICAL EDUCATION, RECREATION AND DANCE COURSES

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).

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 designated explorations of pertinent elements of music.

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.

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: 200 Anatomy and Physiology.
210 Standard American Red Cross First Aid. Two sem hours
Outlined by the American Red Cross, this course consists of lectures, textbooks and practice work in first aid. A certificate is awarded to each student completing the course. Persons enrolling in this course may not take 312 First Aid, Athletic Training and Physiotherapy.

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.

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: P116 Modern Dance I.

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.

261 Techniques of Officiating Men's Sports. Two sem hours
A study of the rules and techniques of officiating several interscholastic sports.

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.

263 Theory and Practice of Football. One sem hour
Lectures, demonstrations, use of motion pictures and practice in teaching the fundamentals and various styles of offensive and defensive play. The course is designed for those expecting to coach this sport. Includes laboratory periods.

264 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. Prereq: P114 Badminton and Tennis, P142 Golf and Bowling.

265 Theory and Practice of Baseball. One sem hour
Consists of lectures, use of motion pictures, demonstrations and field work in teaching the skills involved in this sport. The course is for those expecting to coach this activity. Includes laboratory periods.

266 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: P112 Hockey and Volleyball, P235 Softball, P152 Track and Field for Women.

267 Theory and Practice of Basketball. One sem hour
Lectures, demonstrations, use of motion pictures and practice in teaching the fundamentals and various styles of offensive and defensive play. The course is designed for those expecting to coach this sport. Includes laboratory periods.

269 Theory and Practice of Track. One sem hour
Consists of a study of the organization, administration and field work in teaching the skills involved in this sport. The course is for those expecting to coach this activity. Includes laboratory periods.

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.

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.

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 pre-school and elementary school child. Supervised laboratory experience will be provided.

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: 200 Anatomy and Physiology.

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.

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 it relates to physical education; and (4) a study of special aids to performance.

312 First Aid, Athletic Training and Physiotherapy. Two sem hours
The principles of first aid, athletic training and physiotherapy are studied. 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. Persons enrolling in this course may not take 210 First Aid. Prereq: 200 Anatomy and Physiology.

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.
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.

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.

354 Methods and Materials in Teaching of Dance. Three sem hours
(See Curriculum and Instruction Department.)

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: 245 Elements of Dance Composition, P116, P120 Modern Dance I and II.

367 Methods and Materials in Physical Education and Recreation. Three sem hours
(See Curriculum and Instruction Department.)

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.

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.

390 Sports Summary. Two sem hours
Study of rules and administration of both men’s and women’s individual and team sports.

400 Special Topics. Two sem hours

401 Special Topics. 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.

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.

440 Measurements in Physical Education. Two sem hours
(See Curriculum and Instruction Department.)

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.
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: 107 Rhythmic Analysis and Dance Accompaniment and
P150 Modern Dance IV.

455 Seminar in Dance. Two sem hours
A lecture-discussion course designed for the review of cur­
rent literature and dance research, the study of trends in
dance education and the analysis of developments in con­
temporary concert dance.
Prereq: 350 History of Dance, 450 Advanced Dance Compo­
sition or permission of the department.

470 Field Work in Recreation. Four sem hours
Practical experience under supervision in a recreation pro­
gram directing activities and learning about the administra­
tion 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 department.

480 Recreation Therapy. Two sem hours
Designed to assist occupational therapists and majors in re­
creation 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.

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, cir­
cuses, demonstrations, swimming pageants and community
pageants. Deals with the selection of themes, costuming,
musical accompaniment and other factors involved in such
programs.

495 Senior Seminar. Two sem hours
(formerly PEP 154 Senior Seminar)
A course designed to synthesize the educational theories
presented in the undergraduate physical education program
and the student teaching experience.

497 Directed Study. One sem hour

498 Directed Study. Two sem hours

499 Directed Study. 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 mem­
ers for direction, consultation and evaluation of the com­
pleted 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 appro­
priate background courses.
Prereq: Permission of the department head.

ACTIVITY COURSES
FOR GENERAL STUDENTS

The physical education activity requirement is explained
on page 37 in this catalog. Additional information may be
obtained from the department office in Room 235 Warner Gym­
nasium. Activity and studio classes intended primarily for
majors and minors are listed in the physical education major
on page 116 and the dance major on page 69.

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. Al­
though 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.

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<tr>
<td>146 Beginning Snow Skiing ........................... 1</td>
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<td>147 Archery .............................................. 1</td>
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<td>148 Tennis .............................................. 1</td>
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<td>149 Badminton .......................................... 1</td>
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<td>150 Golf ................................................ 1</td>
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<td>151 Bowling ............................................ 1</td>
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<td>152 Sailing ............................................. 1</td>
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<td>153 Swimming .......................................... 1</td>
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<td>155 Jazz I ............................................... 1</td>
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<td>156 Canoeing .......................................... 1</td>
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<td>157 Physical Education for the Classroom ...</td>
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<td>Teacher .................................................... 2</td>
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<td>158 Folk Dancing ........................................ 1</td>
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<td>159 Tap Dancing ......................................... 1</td>
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<td>160 Ballet .............................................. 1</td>
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<td>161 Modern Dance ...................................... 1</td>
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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

- 209 Intermediate Jishukan Jutitsu
- 219 Intermediate Apparatus
- 221 Cycling
- 222 Men's Gymnastics II
- 225 Intermediate Golf
- 228 Intermediate Badminton
- 234 Jogging
- 243 Intermediate Fencing
- 244 Recreational Shooting and Hunting Safety
- 248 Intermediate Tennis
- 253 Intermediate Swimming
- 255 Jazz II
- 258 Intermediate Folk Dancing
- 260 Intermediate Ballet
- 261 Intermediate Modern Dance
- 316 Intermediate Tumbling and Floor Exercise—Women

Advanced

- 220 Varsity Rifle Team
- 230 Varsity Cross Country
- 231 Varsity Field Hockey
- 231 Varsity Football
- 232 Varsity Basketball
- 233 Varsity Swimming
- 234 Varsity Gymnastics
- 235 Varsity Wrestling
- 236 Varsity Track
- 237 Varsity Softball
- 237 Varsity Baseball
- 238 Varsity Golf
- 239 Varsity Tennis
- 240 Varsity Volleyball
- 240 Precision Drill Team
- 241 Varsity Synchronized Swimming
- 309 Jishukan Jujitsu-Sankyu Brown Belt
- 321 Backpacking
- 353 Lifesaving (Two sem hours)
- 453 Water Safety Instructor-ARC (Two sem hours)

SOCIAL FOUNDATIONS OF EDUCATION

Department Head: Pending
Professors: Thomas M. Gwaltney, Roger L. Leatherman, Jose Llanes, Calvin B. Michael, Thomas O. Monahan, Raymond Padilla, Quirico S. Samonte, Phillip G. Wells
Associate Professor: Robert S. Robinson
Assistant Professors: David Lowe, Joan Petitpren

GRADUATE STUDY

The Social Foundations of Education Department offers graduate work leading to the master's degree in social foundations. Qualified students with senior status may enroll in graduate courses. For descriptions of graduate courses and programs in the Social Foundations of Education Department, please consult the Graduate Catalog.

COURSES

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.
Prereq: 320 Human Growth and Development.

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.
Prereq: 101 or 102 General Psychology. Not open to freshmen or sophomores.

400 Special Topics. Two sem hours

401 Special Topics. Three sem hours
A course which can be offered on an experimental basis for one semester for the purpose of meeting special needs and/or innovations.
SPECIAL EDUCATION

Department Head: Norman J. Niesen
Professors: Angelo A. Angelocci, C. Wayne Fulton, Henry L. Gottwald, James R. Palasek, Dale L. Rice, Frank J. Wawrzaszek
Associate Professors: Thelma P. Albritton, George J. Barach, Joe E. Coyner, Garl E. Garber, Lawrence F. Geffen, Nora Martin, Gerald R. Moses, Gary B. Navarre, David E. Palmer, Marvin L. Skore, Mary S. Ufford
Assistant Professors: Roberta Anderson, Michael Beebe, Lawrence M. Bemish, George E. Caputo, Marjorie K. Chamberlain, Joseph Gonzalez, Marylyn Lake, Sandra E. McClennen, Gayle Nash, Kathleen S. Quinn
Instructors: Lee Shough
Administrative Assistant: Martha Guenin

The function of this department is to train teachers of children in the following areas of exceptionality:

- Hearing Impaired
- Emotionally Impaired
- Mentally Impaired
- Physically and Otherwise Health Impaired
- Speech and Language Impaired
- Visually Impaired

[Learning disabilities is not an undergraduate major; it is a graduate program. For further information, please contact the Special Education Graduate Advising Office, 230 Rackham.]

SPEECH AND HEARING CLINIC

The Speech and Hearing Clinic is maintained as part of the program in the Department of Special Education. This program provides clinical training 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.

The speech and hearing program is maintained as a part of the program in the Department of Special Education. 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 training, majors in speech correction and deaf education may be directly involved in the delivery of these services under staff supervision.

Major

For required courses for a major in special education, see page 130 for curriculum for teachers of special education. For specializing students only.

These curriculums lead to the degree of Bachelor of Science and the provisional certificate. Beginning students who wish to specialize in special education should follow the outline closely. Students entering the department with advanced credits should confer with the head of the department before registering.

Admission to the University does not guarantee admission to the department. A test battery must be completed before a student is admitted to the Special Education Department. This battery of tests must be completed before the student does his special student teaching.

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 but does not offer sufficient specialized work to obtain state approval to teach impaired children.

Affiliations:

In order to give students specializing in special education an acquaintance with the broad problems of the field, visits may be arranged to the following institutions and service agencies:

- Ann Arbor Public Schools
- Durant/Turri 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
- Oakland County Children's Day Center
- Michigan School for the Deaf at Flint
- 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 degree in school psychology and special education. For descriptions of graduate courses and programs in the Special Education Department, please consult the Graduate Catalog.

COURSES

206 Mental Hygiene. Two sem hours
(For description see Educational Psychology)

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 programing. The second half of the course deals with problems of parent counseling, social and psychological adjustment of the deaf, and vocational training and habilitation.

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 him to evaluate his own personal qualifications for working with children in his chosen field. Evaluations of the student's performance will be obtained from a supervising person. Majors in the area of the emotionally impaired, physically impaired, and mentally 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.
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 understand and correct minor defects and to help them cooperate with the speech therapist.

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.

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.

301 Emotionally Impaired Children. Four sem hours
Dynamics of individual growth and behavior, theories of emotional disturbance in children, illustrated by case materials.
Prereq: 360 Abnormal Psychology.

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: 251 Education of Exceptional Children, and 240 Pre-Clinical Experiences in Special Education.

312 Applied Aspects of Teaching Physically Impaired Children. Six sem hours
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: 310 Developmental Aspects of Teaching Physically Impaired Children.

326 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: 391 Language for the Hearing Impaired.

327 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 326 and 327 must be completed prior to Student Teaching with the Hearing Impaired.
Coreq: 396 Speech for the Hearing Impaired II.

336 Anatomy and Physiology of the Speech and Hearing Mechanisms. Three sem hours
The anatomy and physiology of normal production and auditory reception are studied in detail. Emphasis is placed on understanding the physical processes of speaking and listening as dynamic, interdependent processes.

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.

338 Speech Pathology. Two sem hours
Designed to provide the student with a detailed knowledge of the nature, courses and development of speech disorders. An intensive study will be made of the literature regarding delayed speech, articulatory defects, voice problems, stuttering, cleft palate, cerebral palsy and hearing disorders. A minimum of 15 clock hours of speech diagnosis will be required. Lab required.

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 338 Speech Pathology.

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: 338 Speech Pathology.

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 340 Speech Pathology Methods I.

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: 338 Speech Pathology.

343 Clinical Practice in Speech Pathology I. Two sem hours
A minimum of 30 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: 341 Directed Observation in Speech Pathology and 340 Speech Pathology Methods I. Department permission.

344 Clinical Practice in Speech Pathology II. Two sem hours
A minimum of 30 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 and mental impairments.
Prereq: 343 Clinical Practice in Speech Pathology I. Concurrent enrollment in 342 Speech Pathology Methods II.

345 Clinical Practice in Speech Pathology III. Two sem hours
A minimum of 30 clock hours of supervised clinical experience with a variety of speech and hearing disorders.
Prereq: 343 and 344 Clinical Practice in Speech Pathology I and II.
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: 101 General Psychology and 251 Education of Exceptional Children.

354 Juvenile Delinquency. Three sem hours
(For description see Social Foundations of Education)

355 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: 350 Mental Deficiency.

356 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: 355 Educational Programs and Classroom Management for Exceptional Children. Laboratory required.

357 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 psychomotor domains will be discussed and demonstrated to help develop greater self-worth.
Prereq: 355 Educational Programs and Classroom Management for Exceptional Children.

358 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: 355 Educational Programs and Classroom Management for Exceptional Children.

364 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: 365 Braille.

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: 251 Education of Exceptional Children, or can be taken concurrently.

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: 251 Education of Exceptional Children.

367 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: 366 Hygiene and Anatomy of the Eye.

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.

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: 251 Education of Exceptional Children.

378 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.

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: 251 Education and Exceptional Children and junior or senior standing.

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 395 Speech for the Hearing Impaired I.

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: 378 Introduction to Audiology.
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 flu­
cy. Methods of analyzing and transcribing speech will be
emphasized.

396 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: 395 Speech for the Hearing Impaired I.

397 School Subjects for the Hearing Impaired.
Four sem hours
Principles and methods of teaching reading and school sub­
jects to the deaf. Classroom procedures and materials espe­
cially designed for the deaf as well as the adaptation of
regular curriculum and materials will be presented.
Prereq: 228 Survey of Education and Guidance for the Hear­
ing Impaired, 391 Language for the Hearing Impaired.

400 Special Topics. Two sem hours
A course which can be offered on an experimental basis for
one semester for purposes of meeting special needs and/or
innovations.

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: 301 Emotionally Impaired Children and senior
standing.

402 Programs for Emotionally Impaired Children.
Two sem hours
Covers program variations and their adaptations for the edu­
cation 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: 301 Emotionally Impaired Children and senior
standing.

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.

442 Seminar in Hearing Impaired. Two sem hours
444 Seminar in Mentally Impaired. Two sem hours
446 Seminar in Physically Impaired. Two sem hours
448 Seminar in Emotionally Impaired. Two sem hours
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 spe­
cial services as they relate to these units is included. Stu­
dents are encouraged to discuss their public school intern­
ship 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.

452 Voice. Two sem hours
(formerly 552)
A study of the etiology, diagnosis and treatment of func­
tional and organic voice disorders. Defects of loudness,
pitch and quality will be considered.
Prereq: 340 Speech Pathology Methods I.

454 Stuttering. Two sem hours
(formerly 554)
Causation, symptomatology and remedial procedures of stut­
tering; specific therapy procedures in the clinic, the school
and the home.
Prereq: 340 Speech Pathology Methods I.

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. Prepara­
tion and evaluation of materials.
Prereq: 251 Education of the Exceptional Child and senior
standing.

497 Independent Study in Special Education. One sem hour
498 Independent Study in Special Education. Two sem hours
499 Independent Study in Special Education. 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 per­
mission of the department.
COLLEGE OF HUMAN SERVICES

COURSE DESCRIPTIONS

Dean: Robert Buissoneau

Departments and Programs

Home Economics
Medical Technology
Nuclear Medicine Technology
Nursing Education
Occupational Therapy
Social Work
STATEMENT OF PURPOSE AND PHILOSOPHY

The College of 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 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 with other colleges is desired and encouraged. The college will take a leadership role in encouraging a close working relationship between the University and the community.

The College of 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 curriculums 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.

History

The College of Human Services, established in January, 1975, is comprised of the departments of home economics, nursing education, and occupational therapy, and the programs in medical technology, nuclear medicine technology and social work. 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 Human Services and its programs are involved with a wide variety of accrediting agencies which govern the academic standards of many of the curriculums and determine the requirements for entry into those professions, as indicated in the descriptions of these programs.

CLINICAL AFFILIATIONS

The College of 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
- Columbia-Presbyterian Medical Center, New York, N.Y.
- Cooperative Extension Service, Ann Arbor
- Cottage Hospital, Grosse Pointe Farms
- Denver General Hospital, Denver, Colorado
- 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
- Home for Crippled Children, Pittsburgh, PA
- 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
- Michael 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
- Washcenaw 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, MI
- Ypsilanti Public Schools, Ypsilanti
- Ypsilanti State Hospital, Ypsilanti
General Requirements

Admission to the University, for students indicating an intention to enter the dietetics, medical technology, nuclear medicine 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 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 220.

Degrees Offered

The University offers bachelor of science degrees in twelve programs in the College of 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 twelve 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
- Interior Design and Housing
- Medical Technology
- Nuclear Medicine Technology
- Nursing
- Occupational Therapy
- Social Work
HOME ECONOMICS

Department Head: Billie Lou Sands

Professors: Betty L. Bornemeier, Anita L. Fielder, Duane M. Laws, Ruby L. Meis

Associate Professor: R. Elaine Found

Assistant Professors: Betty L. Barber, Robert L. DelCampo, Mary M. Krieger, Richard B. Leimbach, Sarah E. Moore, N. Annette Peel, Gwendolyn M. Reichbach, Judith C. Wil-liston

Instructors: Joyce M. Bauman, B. Joy Hansen, Eleanor T. Trithart, Phyllis A. Young.

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 economics majors 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 curriculums which provide bachelor of science degrees in general home economics, vocational consumer and home economics education, consumer services with a specialization in consumer affairs or foods in business, dietetics, family life, fashion merchandising, interior design and housing. Minors are available in general home economics, child care and guidance services, family life, and nutrition. All are described earlier in the Programs of Study.

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. For descriptions of graduate courses and programs in the Home Economics Department, please consult the Graduate Catalog.

COURSES

102 Family Food Management. Two sem hours

Emphasis on management of human and economic resources in planning nutritionally adequate meals for contemporary living groups. Not open to students who take 251 Meal Management.

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.

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.

109 Interpersonal Relations in the Family. Two sem hours

The course focuses on the skills and attitudes essential for developing interpersonal competence in the family. Dating, courtship and preparation for marriage will be the primary situations which the course will consider. Insight into the behavior of oneself and others will be emphasized to help the student achieve competence in these types of interpersonal relationships.

112 Family Resources. Two sem hours

Financial decisions made involving family resources and influenced by consumer’s role in the economy and sources of consumer protection.

114 Clothing for Consumers. Three sem hours

The selection of appropriate clothing in relation to family needs and resources throughout the family life cycle.

116 Foods for Consumers. Three sem hours

Basic study of foods for consumers, including principles of food selection, preparation and preservation.

118 Clothing Principles. Two sem hours

Application of clothing principles, standards and techniques through construction of a garment. Little or no previous sewing experience necessary.

119 Early American Textiles. Two 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.

200 The Family as Environment. Two sem hours

Study of the development, structures, functions, roles, values, and environment within the family system.

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 202 Human Nutrition.

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 201 Nutrition for the Family. Prereq: 120 Fundamentals of Chemistry or 131 General Chemistry I.

207 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. Observation/participation at the Children's Center. Prereq: Sophomore standing.

208 Basic Interior Design. Three sem hours

Introduces the relationship between contemporary human-family needs and contemporary environmental needs. Emphasis will be on functional and creative residential design. Laboratory required. Prereq: 105 Integrated Arts.

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.

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: 105 Integrated Arts.
211 Food Science. Three sem hours
Nature and reactions of food explained in terms of chemical composition, microbial flora and manipulative practices.
Prereq: 116 Foods for Consumers and 120 Fundamentals of Chemistry or 131 General Chemistry I.

213 Family Health Care. Two sem hours
Survey of current health problems and community resources available to families.

222 Home Furnishing Techniques. Two sem hours
Professional techniques in construction, renovation and restoration of home furnishings. Emphasis on use of fabrics and furniture in project experience.

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.

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: 200 The Family as Environment.

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 102 Family Food Management.
Prereq: 116 Foods for Consumers and 201 Nutrition for the Family or 202 Human Nutrition.

269 Ecological View of Housing. Three sem hours
A study of housing as it relates to social and economic conditions for individuals and families in society.

271 Household Equipment. Three sem hours
Study of appliances, basic principles of operation, performance, care and comparative values for consumer selection. Not open to students who take 102 Family Food Management.

275 Presentation Techniques. Three sem hours
The application of specific techniques involved in the presentation of interior design problems. Emphasis will be on the development of a personal graphic style. Individual problems are assigned and group criticism is frequent. Laboratory required.
Prereq: 208 Basic Interior Design.

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: 200 The Family as Environment.

301 Orientation to Dietetics. Two sem hours
Study of different facets of dietetics profession. Discussion of interdisciplinary approach to total health care. Supervised clinical experiences in hospitals and extended care facilities. Open only to dietetics students.
Prereq: 202 Human Nutrition and 211 Food Science.

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: 235 Textiles for Consumers.

303 Interdisciplinary Study of Clothing. Three sem hours
A study of man and his clothing with social, psychological and cultural emphasis.
Prereq: 200 The Family as Environment or 400 The Family in Environment.

- 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.

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.

308 Infant Care and Guidance. Three sem hours
The home as a center for the nurture and development of infants and toddlers (birth to two years) with particular emphasis on the dynamics of the parent-child relationship. Observation/participation with infant-toddlers at the Children’s Center.
Prereq: 207 Living with Young Children.

309 Residential Design. Three sem hours
Continuing development and analysis of residential interior design. Emphasis on the “design process,” incrementation involved in interior systems, sources and current literature in the interior design field and an introduction to pricing structure.
Prereq: 208 Basic Interior Design, 275 Presentation Techniques and IED 128 Architectural Drawing I.

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. Supervised clinical experiences. Open only to dietetics students.
Prereq: 202 Human Nutrition and 211 Food Science.

322 Family Financial Management. Three sem hours
Analysis of economic problems of the family including study of variety of incomes, expenditure patterns, standards of living, ecological framework and means of security through planning.
Prereq: 285 Home Management.

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: 245 Fashion Analysis, 302 Experimental Clothing.

350 Historic Near Environment. Two sem hours
The evolution of the dominant influences and characteristics of historical interiors, furniture, ornamental design and residential architecture from prehistoric time to the mid-nineteenth century.
Prereq: Junior standing or permission of the department.
351 Historic Near Environment Laboratory. **One sem hour**
Designing interior spaces through the integration of historic and contemporary elements to selected interior design problems.
Prereq: 275 Presentation Techniques.

352 Contemporary Near Environment. **Two sem hours**
Analyzes the interrelationships between humans—families and their near environment in the social context of the 19th and 20th centuries. Emphasis will be on the development of residential and public housing styles, furniture, furnishings and equipment.
Prereq: Junior standing or permission of the department.

353 Contemporary Near Environment Laboratory. **One sem hour**
This laboratory is the companion course of 352 Contemporary Near Environment. It is designed to provide an opportunity for the interior design student (or other interested students) to express in graphic form a knowledge of contemporary interiors and furniture styles.
Prereq: 275 Presentation Techniques.

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: 209 Marriage and Interpersonal Competence; junior or senior standing.

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: 320 Human Growth and Development; or coreq. 326 School and Society and junior standing.

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: 370 Methods and Materials in Consumer and Home Economics Education.

372 Methods and Resources in Child Care. **Three sem hours**
Responsibilities of home economics teachers/family life educators in occupational child care programs. Curriculum and program planning for guiding groups of young children; planning for the secondary pupil to work with pre-school children.
Prereq: 207 Living with Young Children and 308 Infant Care and Guidance; junior standing.

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: 320 Human Growth and Development or coreq. 326 School and Society, and 370 Methods and Materials in Consumer and Home Economics Education.

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: 301 Orientation to Dietetics and 312 Community Nutrition.

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.

392 Pattern Design. **Three sem hours**
Principles of pattern making and special problems in clothing construction and design.
Prereq: 302 Experimental Clothing.

394 Food Systems Management I. **Three sem hours**
Application of managerial processes to food service systems. Familiarization with equipment, layout, sanitation and food procurement systems in university and hospital food services. Supervised clinical experience. Open only to dietetics students.
Prereq: 301 Orientation to Dietetics and 382 Introduction to Management.

399 The Consumer in the Ecology. **Three sem hours**
A study of the varieties of consumer management relationship and countervailing costs involved in the consumption of resources.
Prereq: 112 Family Resources, 201 Principles of Economics I, or permission of department.

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: 200 The Family as Environment; junior or senior standing.

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: 201 Nutrition for the Family or 202 Human Nutrition and 351 Introductory Biochemistry.

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: 235 Textiles for Consumers.

409 Consumer Problems in the Family. **Three sem hours**
An in-depth course exploring the role of the consumption sector in formulating economic policies.
Prereq: 112 Family Resources and 201 Principles of Economics I.

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: 211 Food Science and 120 Organic Chemistry or equivalent.
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: 201 Nutrition for the Family, or 202 Human Nutrition, or permission of the department.

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: 372 Methods and Resources in Child Care.

414 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.

415 Diet and Disease. Three sem hours
Study of diet in the treatment of abnormal metabolic and disease states.
Prereq: 402 Nutrient Metabolism, 351 Introductory Biochemistry, 270 Human Physiology.

416 Contemporary Issues in Nutrition. Three sem hours
Assessment of nutrition controversies, issues and problems of local, national and world significance.
Prereq: 201 Nutrition for the Family or 202 Human Nutrition.

420 Seminar in Consumer Issues. Three sem hours
Critical analysis and evaluation of a current vital issue for consumers.
Prereq: Senior in consumer affairs specialization or permission of the department.

422 Seminar in Child Development. One sem hour
Critical analysis of selected readings and research in child development, with interpretations of possible implementation in occupational child care services.
Prereq: 207 Living With Young Children, permission of the department.

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.

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: 345 Fashion Merchandising.

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.

445 Advanced Residential Design. Three sem hours
Simulation of the professional interior designer's task of defining and satisfying a client's needs. Continuing familiarization with available sources and pricing structure. Numerous problems are assigned and group criticism is frequent. Laboratory included.
Prereq: 309 Residential Design.
447 Contract Design. Three sem hours
Interior design experience in solving problems particular to contract work. Students will be involved with the application of methods and materials as they relate to specific commercial businesses. Laboratory required. Prereq: 445 Advanced Residential Design and IED 128 Architectural Drawing.

460 Tailoring. Three sem hours
Fundamental construction processes and special techniques applied to the construction of tailored garments; alterations and adaptations. Prereq: Six hours of credit in clothing and/or textiles; or permission of the department.

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.

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: 384 Clinical Dietetics I.

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: 484 Clinical Dietetics II.

490 Special Work (Honors Course). One sem hour

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.

494 Food Systems Management II. Three sem hours
Principles of food production procedures emphasizing financial and quality controls in institutional food service systems. Supervised clinical experiences. Open only to dietetics students. Prereq: 394 Food Systems Management I.

495 Food Systems Management III. Five sem hours
Study of administrative aspects of dietetics with emphasis on interviewing, training and evaluation of employees in food service systems. Exploration of computer use in food service systems. Supervised clinical experiences. Open only to dietetics students. Prereq: 494 Food Systems Management II.

497 Directed Study. One sem hour

498 Directed Study. Two sem hours

499 Directed Study. 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.

MEDICAL TECHNOLOGY

NUCLEAR MEDICINE TECHNOLOGY

Director, Lois A. Beerbaum

These are two separate programs, Medical Technology and Nuclear Medicine Technology. Each leads to a Bachelor of Science degree. In the programs of study section of this catalog, the Medical Technology Curriculum is on page 103 and the new Nuclear Medicine Technology Curriculum is on page 111. Students interested in either should read carefully both the program requirements and the admission procedures.

The only course regularly offered under the MDT medical technology prefix is the following one.

COURSE

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.
NURSING EDUCATION

Department Head: Janet Boyd
Associate Professor: John Nikkari
Assistant Professors: Donna Eyster, Deanna Gaus, Rosemary Hanamy, Catherine Kaunisto, Margaret Powers, Cheryl Schmidt, Judith Wood
Instructors: Virginia Ghant, Betty Holbert, Barbara Schefter, Mary Jean Schumann, Delores Sell, Marilyn Welch

See the description of the nursing curriculum and the admission requirements on page 112.

COURSES

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.

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: 204 Framework for Nursing, 201 Anatomy and Physiology.

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: 204 Framework for Nursing, 201 Anatomy and Physiology.

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.

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: 250 Nursing Science I, 251 Nursing Science I Clinical Laboratory, 202 Anatomy and Physiology, and 320 Pathology.

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: 250 Nursing Science I, 251 Nursing Science I Clinical Laboratory, 202 Anatomy and Physiology, and 320 Pathology.

320 Pathology. Two sem hours
Designed to further student's ability to gather and assess data about patients by broadening their understanding of the dysfunctions created by major physical illnesses, theories of causation and the signs and symptoms of the more usual syndromes.
Prereq: Permission of the department.

350 Nursing Science III. Three sem hours
Deals with long-term illness and the bio-psycho-social needs of aging persons. Selected conditions and diseases are studied in order to illustrate the ways in which the nurse may assist these individuals. Lecture: two hours per week. Recitation: one hour per week.
Prereq: 304 Nursing Science II, 305 Nursing Science II Clinical Laboratory and 328 Microbiology, and 270 Pharmacology.

351 Nursing Science III Clinical Laboratory. Four sem hours
Clinical practice in nursing homes and extended care facilities. Emphasis is on the student's acquiring the knowledges and skills necessary to meet the needs of the aging and chronically ill. Students make home visits to families with health problems. Laboratory: eight hours per week.
Prereq: 304 Nursing Science II, 305 Nursing Science II Clinical Laboratory, 270 Pharmacology, 328 Microbiology.

370 Physical 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. This course is graded credit/no credit.
Prereq: 304 Nursing Science II, 305 Nursing Science II Clinical Laboratory, 270 Pharmacology, 328 Microbiology.

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: 350 Nursing Science III, 351 Nursing Science III Clinical Laboratory and 370 Physical Assessment.

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: 350 Nursing Science III, 351 Nursing Science III Clinical Laboratory and 370 Physical Assessment.

450 Nursing Science V. Three sem hours
Introduction to the principles of managing a caseload of patients either in the hospital or community setting. Needs, roles and responsibilities of the professional nurse are explored and discussed. Recitation: three hours per week.
Prereq: 404 Nursing Science IV and 405 Nursing Science IV Clinical Laboratory.

451 Nursing Science V Clinical Laboratory. Four sem hours
Students assume responsibility for managing the nursing care of a group of patients and do an in-depth case study in a setting of their choice—community or hospital. Laboratory: eight hours per week.
Prereq: 404 Nursing Science IV and 405 Nursing Science IV Clinical Laboratory.

497, 498, 499 Independent Study. One, two, and three sem hour
Prereq: Permission of the department.
OCCUPATIONAL THERAPY

Department Head: Lyla M. Spelbring
Associate Professor: Marianne Maynard
Assistant Professors: Normajean Bennett, Ruth Hansen, Catherine MacDonald, Eleanor Nystrom, Yvonne Teske
Instructor: Ben Atchison

The Occupational Therapy Curriculum and the admission and retention procedures are described on page 113.

COURSES

- **300 Introduction to Occupational Therapy.** Three sem hours
  
  A description at an introductory level of the roles and functions of occupational therapy in providing direct and indirect health-care service. A practicum experience provides an opportunity for the students to develop skills in observing and interacting with limited populations.
  
  Prereq: Admission to the curriculum; departmental permission.

- **302 Developmental Activities.** Four sem hours
  
  A presentation of the theory, analysis and application of developmental activities used in occupational therapy intervention.
  
  Prereq: 300 Introduction to Occupational Therapy. To be taken concurrently with 303 Conditions of Early Childhood and 308 Programming for Early Childhood.

- **303 Conditions of Early Childhood.** Three sem hours
  
  Conditions which interrupt early childhood development and performance, and necessitate OT intervention are presented. A discussion of the health-illness continuum is included.
  
  Prereq: For OT majors—To be taken concurrently with 302 Developmental Activities, 308 Programming for Early Childhood. For non-OT majors—Introductory biology or chemistry course and an introductory psychology or sociology course.

- **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 discussed.
  
  Prereq: 300 Introduction to Occupational Therapy. To be taken concurrently with 302 Developmental Activities, 303 Conditions of Early Childhood.

- **403 Conditions of Childhood and Adolescence.** Three sem hours
  
  Identification of conditions which interrupt development in later childhood and adolescence, necessitating occupational therapy intervention.
  
  Prereq: For OT majors—303 Conditions of Early Childhood, 308 Programming for Early Childhood. To be taken concurrently with 418 Programming for Childhood and Adolescence, 420 Fieldwork. For non-OT majors—Introductory biology or chemistry course and an introductory psychology or sociology course.

- **413 Conditions of Adulthood and Aging.** Three sem hours
  
  The impact of specific conditions on adult development and performance, necessitating occupational therapy intervention, is analyzed. Concepts of prevention are included.
  
  Prereq: For OT majors—403 Conditions of Childhood and Adolescence. To be taken concurrently with 419 Programming for Adulthood and Aging, 421 Fieldwork. For non-OT majors—Introductory biology or chemistry and an introductory psychology or sociology.

- **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 OT approaches.
  
  Prereq: 303 Conditions of Early Childhood, 308 Programming for Early Childhood. To be taken concurrently with: 403 Conditions of Childhood and Adolescence, 420 Fieldwork.

- **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: 418 Programming for Childhood and Adolescence. To be taken concurrently with: 413 Conditions of Adulthood and Aging, 421 Fieldwork.

- **420 Fieldwork. (part-time)** Two sem hours
  
  - **421 Fieldwork. (part-time)** Two sem hours
  - **422 Fieldwork. (full-time)** Three sem hours
  - **423 Fieldwork. (full-time)** Three sem hours

  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 Registration Examination. Assignment to field placement is arranged and approved by the department and is by recommendation of the occupational therapy faculty. 420 and 421 are part-time placements of one semester each, taken concurrently with course work. 422 and 423 are full-time placements of a minimum of six months.
  
  Prereq: Departmental permission.

Note: The above courses are part of the new curriculum. The courses in the old curriculum, described in the 1977-78 catalog, will continue to be offered for a number of semesters while students finish the old program.
SOCIAL WORK PROGRAM

Associate Professor: Leroy W. Watts
Assistant Professors: Fred T. Gibilisco, Joan Laird, Don Loppnow, Marguerite D. Smith

The Social Work Program was formerly a part of the Department of Sociology in the College of Arts and Sciences. As of July, 1978, the program becomes part of the College of Human Services.

The requirements for the social work curriculum are given on page 128. The social work minor is described on page 129.

COURSES

112 Introduction to Social Welfare Services. Three sem hours
A survey of social welfare institutions and policies in their historical and modern contexts. The focus will be on American welfare services as related to the economic, political, and socio-cultural conditions and prevailing ideologies.

216 Social Work Services and Professional Roles. Four sem hours
Social work philosophy, values, professional roles, practice settings, current trends, and models of social work practice are examined. The student will also become familiar, through class lecture and direct field observational experience, with the service settings in which the social worker practices.

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.

317 Practice Preparation Lab and Community Service Experience. Three sem hours
This course will serve to prepare the student for the field experience courses (410–411). Laboratory sessions will utilize experimental techniques to enable students to learn and practice skills in interpersonal communication, developing relationships, and interviewing. In the community service experience portion of the course, students will undertake a "community project" introducing them to various community social service programs and exposing them to the functioning of these service delivery systems.

360 Seminar on Social Work Practice with Minorities. Two sem hours
The psycho-social concepts of racial and ethnic minorities will be further examined and applied within the context of social work practice. Students will have the opportunity to analyze the validity and reliability of accepted social work methodology and technique in the development and implementation of direct social work services to people with varied backgrounds.

Prereq: 216 Social Work Services and Professional Roles, 214 Racial and Cultural Minorities, plus an additional course relating to minorities.
400 Social Service Practicum I. Four sem hours
The student is assigned to a human services agency or organization for the semester for eight hours weekly. The agency, in agreement with the faculty instructor, provides social work learning experiences and social work supervision related to the student's knowledge and educational goals. A two-hour weekly seminar relates practicum experience to theoretical knowledge. This course is intended for students minorin 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: Senior standing and departmental permission. Not open to Social Work majors.

401 Social Services Practicum II. Four sem hours
A continuation of SWK 400 Social Service Practicum I for Non-Social Work majors. Not open to social work majors.
Prereq: 400 Social Service Practicum I.

408 Social Work Practice I. Three sem hours
This course will introduce the student to a generic conceptual framework for social work practice. Emphasis will be given to practice values, worker relationships, communication skills, a model for practice, and phases of the practice process.

409 Social Work Practice II. Three sem hours
The second practice course is a continuation of 408 and is designed to help the student consider in more depth a variety of social work practice models, interventive strategies, methods, roles and skills.
Prereq: 408 Social Work Practice I. Must be taken concurrently with 411 Field Experience II.

410 Field Experience I. Six sem hours
The students are assigned to a specific agency for the semester for a period of sixteen hours weekly. The agency, in agreement with the school, provides learning experiences and supervision that are appropriate to the objectives of the 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.

411 Field Experience II. Six sem hours
A continuation of Social Work 410 Field Experience.
Prereq: Must be taken concurrently with 409 Social Work Practice II. Open to majors only.

418 Policies and Issues in Services to Families. Three sem hours
This course is both the foundation course for the Family and Children's Services Curriculum Specialty and an elective for students interested in an analytical 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: 112 Introduction to Social Welfare Services and 216 Social Work Services and Professional Roles, or department permission.

419 Family-Centered Practice. Three sem hours
Students will deepen their understanding of the family as a social psychological system which must meet the needs of both adults and children. In developing and implementing services to families and children, the prevention of placement whenever possible is seen as a primary goal. The course will enhance practice knowledge and skills in delivering preventive, supportive, therapeutic and supplementary service to families in need of help. Particular attention will be given to working with so-called vulnerable families or families in which children have been identified as neglected or abused.
Prereq: 112 Introduction to Social Welfare Services and 216 Social Work Services and Professional Roles, or department permission.

420 Working with Aged People. Three sem hours
This course will provide an overview of the role of the social worker in working with aged people. Special attention will be given to the delivery of social services to the aged with a focus on practice approaches and techniques unique to various social service settings.
Prereq: 216 Social Work Services and Professional Roles, or departmental permission.

422 Specialized Services for Families with Children in Placement. Three sem hours
This course will provide education and training for direct practice in family and children's services settings. Attention is given to working with families in which abuse or neglect has been identified and in which one or more children are in placement of some type. Practice models centered on creative, rehabilitative social work with natural families, children in placement, foster parents or other substitute care providers will be studied. Strong emphasis is given to practice issues in the reunification of families whenever appropriate and possible.
Prereq: 216 Social Work Services and Professional Roles, or departmental permission.

481 Special Topics in Social Work Practice. Two sem hours

482 Special Topics in Social Work Practice. 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 from year to year, a student may take the course more than once.
Prereq: 216 Social Work Services and Professional Roles, or departmental permission.

494 Independent Study. One sem hour

494 Independent Study. Two sem hours

496 Independent Study. 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.
DIVISION OF APPLIED SCIENCES

COURSE DESCRIPTIONS

DEPARTMENTS

Industrial Technology and Industrial Education
Military Science
INDUSTRIAL TECHNOLOGY AND INDUSTRIAL EDUCATION

Department Head: H. James Rokusek
Professors: Ronald J. Baird, Jerald A. Griess, Gerald L. Jennnings, Clois E. Kicklighter, Raymond A. LaBounty, Delmar L. Larsen
Associate Professors: Ralph F. Gilden, Paul D. Kuwik, Gene D. Minton, Carroll A. Osborn, Harold E. PaDelford, John A. Weeks, John T. Wescott
Assistant Professors: Robert A. Benden, Robert C. Cooksey, Norman L. Delventhal, Lewis D. Kieft, Herbert L. Nelson, Alfred C. Roth, William J. Streib, Herbert H. Wilson
Instructor: Michael D. Simms

The Department of Industrial Technology and Industrial Education offers courses and curriculums which provide:

1. The Bachelor of Science or Bachelor of Arts degree in industrial education or industrial technology.
2. Certification to teach industrial arts in the middle school, junior and senior high grades.
3. Certification to teach industrial-vocational subjects in the senior high grades.
4. A 20-hour minor in industrial education for the elementary grades.
5. Studies in technology as part of the arts group major or minor.
6. A 24-hour minor in industrial technology.
7. The Master of Arts Degree in Industrial Education for persons who hold a secondary provisional teaching certificate in industrial education.
8. The Master of Science Degree in Industrial Technology.
9. Elective courses for all university students who wish to broaden their interests and experiences in the arts of industry and technology.

The four-year programs in teacher education and industrial technology are designed as curriculums with specializations in discrete areas built into the course sequences. Completion of either program as described fulfills University requirements for a major and minor (see page 93–94).

Secondary Industrial Teacher Education Curriculum

This curriculum provides for the certification of teachers for industrial arts in middle school, junior and senior high grades. See Curriculum for Teachers of Industrial Education, page 93.

Majors and Minors for Elementary Education

The elementary minor in industrial education and the arts group major or arts group minor involving courses in industrial arts are described in the section entitled "Curriculums for Elementary Teachers". These minors are for elementary and special education students only. See Group Majors and Minors for Early and Later Elementary Teachers, page 80.

GRADUATE STUDY

The Industrial Technology and Industrial Education Department offers graduate work leading to the master's degree in industrial teacher education and industrial technology. For descriptions of courses and programs in the Industrial Education Department, please consult the Graduate Catalog.
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.

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.

200 Industrial Electricity. Three sem hours
(formerly Electricity and Electronics I)
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.

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.

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.

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.

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.

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: 121 Graphic Communication and one course in chemistry.

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: 107 Trigonometry

207 Photographic Reproduction. Two 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: 121 Graphic Communication or 104 Graphic Arts Processes.

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.

214 Solid State Electronics. Three sem hours
(formerly Electricity and Electronics II)
The 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: 200 Industrial Electricity.

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.

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.

218 Energy Systems. Three sem hours
An introduction to systems used to generate, transmit and utilize energy. Concern is directed at describing energy sources and uses, and the interrelationships of energy systems. Lecture: two hours per week. Laboratory: two hours per week.

219 Technics 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.

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: 122 Technical Drawing.

229 Architectural Drawing II. Three sem hours
This course is a continuation of 128 Architectural Drawing I. Emphasis is placed on the actual application of design through materials, techniques and principles. Field problems will form the basis for application of principles and practices learned. Lecture: two hours per week. Laboratory: two hours per week. Prereq: 128 Architectural Drawing I.

250 Foundations of Industrial Education. Three sem hours
The cultural forces in history which have tended to shape the various types of programs in industrial education and the philosophical viewpoints which have evolved from these events.

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.
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.

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.

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: 204 Photographic Communication. The student must furnish a camera and photo materials.

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: 202 Plastics.

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: 202 Plastics.

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 being offered. This course may be repeated for additional credit. Prereq: 207 Photographic Reproduction or permission of the department.

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.

315 Communication Circuits.
Two sem hours
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. Prereq: 214 Solid State Electronics.

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: 215 Machine Tool Metalworking.

318 Energy Transfer Systems.
Two sem hours
Mechanical, fluidic and electrical methods of energy transfer are presented. Principles of hydraulics, pneumatics and electronics provide a base for laboratory experimentation in these methods. Lecture: one hour per week. Laboratory: two hours per week.

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.

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: 223 Descriptive Geometry.

331 Industrial Computer Graphics.
Three sem hours
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: 107 Plane Trigonometry, or permission of the department.

350 Curriculum in Industrial Education.
Three sem hours
A study of curriculums 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: 250 Foundations of Industrial Education, junior standing.

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: 253 Industrial Technology and the Elementary Teacher.

355 Seminar in Technology for the Elementary School.
Two sem hours
A seminar offered in an elementary school to illustrate how to integrate concepts of technology with the existing elementary curriculum. Prereq: 354 Experiences in Technology for Children.

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 department permission.

394 Cooperative Education in Industrial Technology.
Three sem hours
The industrial technology major will be placed on a job that relates to his or her primary area of study for one semester. During this period regular employee benefits may be received. Credit applicable to the major in industrial technology or industrial teacher education only.
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. Laboratory: two hours per week. Prereq: 201 Construction Technology.

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: 201 Construction Technology.

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: 201 Construction Technology.

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: 203 Manufacturing Technology.

424 Industrial Plant Facilities and Planning. Three sem hours
Designed to give the student a basic knowledge of planning procedures related to small plant and heavy industrial production. Included are 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.

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: 461 The Teaching of Industrial Education and concurrent with or following student teaching.

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: 350 Curriculum in Industrial Education.

494 Cooperative Education in Industrial Technology. Three sem hours
The second in a two-course sequence for industrial technology majors. The students will be placed on a job that relates to his or her primary area of study for one semester. During this period regular employee benefits may be received. Credit applicable to the major in industrial technology or industrial teacher education only. Prereq: 394 Cooperative Education in Industrial Technology.

497 Directed Study. One sem hour
498 Directed Study. Two sem hours
499 Directed Study. 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.
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 104.

### COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Program Year</th>
<th>Program Level</th>
<th>Credits</th>
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<td>100</td>
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<td>101</td>
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<td>200</td>
<td>Applied Leadership and Management I, Second Year—Basic Program</td>
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<tr>
<td>201</td>
<td>Applied Leadership and Management II, Second Year—Basic Program</td>
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<td>300</td>
<td>Advanced Military Leadership and Management I, First Year—Advanced Program</td>
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<td>Leadership Laboratory, First Year—Advanced Program</td>
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</table>
CONTINUING EDUCATION

Dean: George P. Melican
Directors: Marianne Maynard, Arthur N. McCafferty, Jane K. Moehe
Pupil Transportation Services Director: Dale Benjamin

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 students who desire education in fields not connected with education, but an increasing number of non-academic for adult education courses, for lecture series employed teachers desiring to further their education. 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 Office 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 Goodison Hall, Eastern Michigan University, Ypsilanti (487-0407).

IN-SERVICE COURSES

The Office of Continuing Education offers credit courses at 17 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 other fields 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 Office 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. An Eastern Michigan University Graduate Student—a student who has been admitted to the Graduate School at community at large and to the non-traditional student. For many years, the Office of Continuing Education, formerly the Division of Field Services, at Eastern Michigan University, has maintained extensive correspondence and in-service programs for students unable to complete their education on Eastern's campus and for employed teachers desiring to further their education. 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.
   B. A Guest Student—a student who (1) currently holds graduate admission to another college or university, (2) wishes to earn graduate credit at EMU to be transferred to his/her present institution, (3) files an Application for Guest Admission and (4) has had Part 2 of the Guest Student application form ("Recorder Action") filled out by the dean of the Graduate School at the parent institution, or by its designated agent. The Official Seal of the parent institution must be affixed.
   C. A Non-Matriculated Student—a student with a bachelor's degree who is permitted to take courses for one semester only, with no further enrollment unless regularly admitted.
3. Students must register by mail or in person for in-service courses through the director of Registration, Briggs Hall, Eastern Michigan University, Ypsilanti, Michigan 48197 (487-3300).
4. Students are held to the same requirements concerning distribution of courses as are students in residence. Students should consult outlines of curriculums as published in the University catalog, should make their selection of work and should consult the dean of Academic Records and Teacher Certification.
5. No course will be offered for credit in in-service courses which is not a part of the regular curriculums of Eastern Michigan University.

Fees

1. 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 p. 14.
2. Students taking off-campus classes may now use the installment payment option for tuition.
3. 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 insure a place in the class.
4. Tuition adjustment ("refund") policy for cancellation of registration or withdrawal from a class or classes is the same as for on-campus classes. See p. 15.

Credits

1. 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 dean of academic records and teacher certification.
2. Students regularly enrolled at other colleges or universities may be enrolled as guest matriculants.
3. 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 p. 21.
4. It is expected that students seeking certification or degrees will acquaint themselves with the University regulations which are available from the dean of academic records and teacher certification.
5. Persons may audit a course without credit upon payment of regular fees, following the regular policy on p. 22.

CONTRACT COURSES

The Office of Continuing Education also offers courses on a contract basis. These credit courses are arranged between a school system and Eastern Michigan University. They are designed to investigate problems unique to the particular school system and they are usually held at one of the schools.

CONFERENCES AND WORKSHOPS

Eastern Michigan University opens its campus to the public for conferences and workshops. The Office of Continuing Education is ready to assist any group in planning a work-
Courses in Renaissance Art, Drawing, and Independent problems and visits to museums, churches and monuments staff will aid in arranging for meals, housing, suitable meet­-the field related to the conferences.

In recent years, groups have been encouraged to plan pro­grams of a continuing nature. The following programs have become annual workshops:

CHEERLEADING WORKSHOPS: Learn and experience new skills and latest techniques in one of three exciting sessions under the guidance of experienced collegiate staff instructors. Personal assistance given to ju­nior high and high school squads in every phase of cheer­leading, pompom routines, pep and spirit.

LIBRARY ORIENTATION FOR ACADEMIC LIBRARIES: Librarians, administrators, faculty, and students are invited to participate in this workshop presented by the Eastern Michigan University Library. The program includes speakers, panels, and discussions to explore issues, problems, and methods of library instruction. Also view Library Orienta­tion-Instruction Exchange (LOEX) exhibits.

MATHEMATICS EDUCATION WORKSHOP: For elementary and secondary school teachers, supervisors, administrators, and high school junior and senior math stu­dents sponsored by the Department of Mathematics. Emphasis is placed on teachers in the field sharing ideas. Work­shop includes book and materials displays as well as general and individualized section meetings covering all phases of mathematics presented by qualified personnel from many schools and universities.

SCHOOL BOARD WORKSHOP: Orientation workshop goal is to provide opportunities for the “New School Board Member and Others” to receive training toward becoming a more proficient school board member through participation in a workshop that provides small group work clinics, audio-visual presentations, lect­ures and written materials. Co-sponsored by the Michigan Association of School Boards and the Department of Educa­tional Leadership, Eastern Michigan University.

SUMMER WORKSHOP IN THEATRE: The workshop in theatre is offered for high school students to work and learn in a collegiate atmosphere. Every phase of play production will be explored in this intensive two-week workshop. Each participant will be actively involved in every phase of play production—acting, directing and tech­nical theatre. A graduate seminar will be conducted in con­junction with the workshop.

As indicated by this list of annual workshops, Eastern Michigan University offers its facilities for an unlimited va­riety of conferences. Groups interested in arranging for con­ferences or workshops should contact the Coordinator of Conferences, Continuing Education, Eastern Michigan Uni­versity, Ypsilanti, Michigan.

TRAVEL TOURS AND WORKSHOPS

Each spring and summer, Eastern Michigan University, through the Office of Continuing Education, conducts a number of travel tours and workshops. Typical of these tours which occur regularly are:

Spring

Workshop in Studio and Art History—Florence, Italy: Courses in Renaissance Art, Drawing, and Independent Study. Program will include lectures, discussions, studio problems and visits to museums, churches and monuments of cultural and historical importance in Florence and the surrounding area.

Shakespeare and Shakespeare Country at Stratford-Upon­Avon, England: Program will include lectures by members of the staff of the Shakespeare Institute, group discussions and readings, recitals and performances at the Royal Shakes­peare Theatre, performances at other nearby theatres and field trips to sites of educational and cultural significance.

Summer

Film Program—London, England: Includes lectures by staff members of Eastern Michigan University and the British Film Institute, discussions and film screenings at the British Film Institute Theatre.

Modern British Theatre and Drama: Program includes lect­ures by Eastern Michigan University faculty, British schol­ars and theatrical personalities; discussions; attendance at plays in London theatres.

European Cultural History Program in Vienna, Austria, Mu­nich, Germany and Florence, Italy: The program will in­clude lectures, visits to museums and historical sites, and attendance at concerts and operas. Field trips will include visits to Prague, Salzburg and Venice. Emphasis will be placed upon a cultural approach to the history of western civilization.

European History Tour: This popular tour usually combines several days of travel in Spain, Italy, Greece, Germany, Swit­zerland and other central European countries with an ex­tended study of German history and geography in Munich.

Workshop in British Education: Through the cooperation of the University of Reading, Reading, England, students are provided with the opportunity of living and studying in Eng­land and observing the British educational system in ac­tion.

The Open Classroom: Through the cooperation of Berkshire College of Education, Reading, England, students will have the opportunity to work as members of teams which assist the staff and children of informal English schools. The facil­ities of the campus at Berkshire College of Education will be made available for the examination and construction of cur­riculum materials, teaching aids and resources.

Safari Through African History: A big game camping safari through Africa’s history, ecology, and tribal life. Three weeks of camping in the East African savannah, northern desert, volcanic highland, and Indian Ocean shore. One week to scale Mt. Kilimanjaro. The purpose is to combine the game viewing excitements of an old style “bush-safari” with a solid academic experience.

LECTURERS

Members of the Eastern Michigan University faculty are available for lectures at community meetings, women’s clubs, parent-teacher associations and other organizations of an educational character. For information concerning speakers and subjects, write the dean of Continuing Education.

CONSULTATION SERVICES

Eastern Michigan University is ready to assist any school in Michigan in solving its problems. The Office of Continu­ing Education will aid in making school surveys, will advise on school organizations, equipment, courses of study, meth-
LIBRARY SERVICES

The Eastern Michigan University Center of Educational Resources places its facilities at the disposal of all students taking classes through the Office of Continuing Education. While every effort is made to honor all requests, the library cannot guarantee to furnish all books at a specified time. It is advisable that students requesting books through mail suggest alternates.

Request forms are furnished. Requests for materials should be addressed to the circulation librarian, Eastern Michigan University, Ypsilanti, Michigan; they should include full bibliographic information. Books and periodicals requested by mail will be loaned for one month and may be renewed upon request 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 certificate of registration. (Certificate of registration will be sent to students enrolled in off-campus classes and independent study through correspondence courses upon request). 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. Wheres specimens of work 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

1. Students make application for independent study through correspondence courses to Independent Study Through Correspondence, Continuing Education, 319 Goddard Hall, Eastern Michigan University, Ypsilanti, Michigan 48197.
2. Course enrollment may be made at any time.
3. 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.
4. Students working toward a degree to be awarded by Eastern Michigan University are held to the same re-

Course Requirements

1. Independent study through 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.

ENG225 Intermediate English Composition. Three sem hours
LIT210 Shakespeare. Three sem hours
ENG302 Modern English Syntax. Three sem hours
LIT305Shakespeare: The Major Comedies and Histories. Three sem hours
ENG325Expository Writing. Three sem hours
GEO108Earth Science. Four sem hours
GEO110World Regions. Three sem hours
PLS102Michigan Government. One sem hour
PSY101General Psychology. Three sem hours
SOC105Introductory Sociology. Three sem hours
PED320Health Education in the Elementary Grades. Two sem hours

THE CENTER FOR THE STUDY OF CONTEMPORARY ISSUES

Director: Monroe P. Friedman

This University center was established in 1970 to study some of the major contemporary issues confronting society. While the bulk of the center’s early efforts were directed toward the development and execution of an issue-oriented instructional program, the focus has now changed to research and community service. Recent undertakings include a television series on the automobile in American life which was produced and broadcast on the Detroit PBS Affiliate WTVS (Channel 56) with funds provided by the Michigan Council for the Humanities; and a comprehensive community program to serve the needs of older consumers. This program was developed in conjunction with Washtenaw Community College and interested community agencies, with funds provided by the Michigan Department of Education.

OFFICE OF RESEARCH DEVELOPMENT (ORD)

Director: Charles R. Gale

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 through the ORD column in Focus. 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.
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 Curriculums
A limited number of Eastern Michigan University juniors have the opportunity to exchange places during the fall with a comparable number of second-year students at Coventry College of Education 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 if 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. Semester or year of Study at the University of Copenha­gen for Juniors
A limited number of Eastern Michigan University juniors have the opportunity to study for one or two semesters at the University of Copenhagen. Courses are offered in a variety of academic fields. The language of instruction is English and students earn up to 15 semester hours of credit. The program is conducted in cooperation with Denmark's International Student Committee.

3. Spring Programs Abroad
See the descriptions under “Continuing Education.”
During the spring term, the following programs are open to students for graduate and/or undergraduate credit:

- Workshop in Studio and Art History—Florence, Italy
- Shakespeare and Shakespeare Country—Stratford-Upon-Avon, England

4. Summer Programs Abroad
During the summer, several departments of Eastern Michigan University offer courses or programs abroad which are open to graduate and/or undergraduate students. See the descriptions under “Continuing Education.” These programs include:

- Education in England
- Overseas Film Program—London, England
- Modern British Drama—London, England
- European History Study Tour—Munich, Germany

5. Trimester at Edinburgh University for Juniors on a Teaching Curriculum
A limited number of Eastern Michigan University juniors have the opportunity to spend the fall trimester at Edinburgh University, Edinburgh, Scotland.

The program arrangements are similar to those for Coventry, England, above.

6. Programs Sponsored by the American Association of State Colleges and Universities
Eastern Michigan University is a member of the American Association of State Colleges and Universities. Through its Committee on International Programs, the Association develops study programs abroad. Each of these programs is primarily sponsored by one of the member institutions. However, they are available to students of all member institutions and therefore open to Eastern Michigan University students. At present three programs are in operation. They are:

(a) A Year’s Study in Canada. This program is sponsored by the State University of New York College at Plattsburg. It offers opportunity to study in the Montreal area at Loyola College, McGill University, Sir George Williams University or the University of Montreal. A wide range of courses is available and the instruction may be in English or French depending on the institution.

(b) A Year or an Academic Quarter of Study in Mexico. The program in Mexico is sponsored by Adams State College, Alamosa, Colorado, and offers the opportunity to study at the University of the Americas at Puebla, Mexico, a short distance from Mexico City. A broad spectrum of studies is available.

(c) A Year’s Study in Rome. Louisiana Tech University at Ruston, Louisiana, has developed a study center in Rome available to Eastern Michigan University students for an academic year. It offers opportunities for study in the humanities, social studies and languages.

Additional information and application forms for the programs above and information about other opportunities for study abroad may be obtained from the Office of International Studies.

European Cultural History Program—Austria, France, Italy
African History Safari—Kenya, Tanzania
Marketing Seminar in Holland
Summer Institute in Southern Africa
GRADUATE SCHOOL

Interim Dean: Omer Robbins, Jr.
Associate Dean: Pending
Assistant Dean: Neal F. Hoover

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 SENIORS

A student of senior standing 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.

To be eligible for either, a student must have undergraduate admission at Eastern, have acquired 85 hours or more of undergraduate credit and have a cumulative grade point average of 2.50 or better in all course work 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 a senior should not prolong the completion of undergraduate degree requirements.

The maximum number of graduate hours that can be taken during the senior year is ten. Election of graduate courses is limited to the 500 series, exclusive of independent study. Seniors are not permitted to enroll in 600 series courses.

There are several restrictions on the use of credit earned in the graduate courses by seniors:

- 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 taken as a senior 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 Permanant/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, Non-Degree, Teacher Certification or Guest.

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 2.25 or 2.5 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 6.0 (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 through the Graduate School catalog. Applicants who do not possess a 2.25 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 DEGREE

A minimum grade point average of 6.0 (B+) in the master's degree program is required for admission to the specialist degree. For those departments admitting students into the specialist 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.

NON-DEGREE AND TEACHER CERTIFICATION

Non-degree and teacher certification admissions are open to anyone who holds a bachelor's degree from an accredited college or university and indicates promise of success in graduate study.

GUEST

This admission is available to students pursuing graduate study at another institution who wish to earn graduate credit at Eastern for transfer to the parent institution. Guest admission is valid for one enrollment period only. Application forms and guidelines for this type admission can be obtained from the Graduate School Office.

FINANCIAL ASSISTANCE

There are several sources of financial assistance available to graduate students at Eastern Michigan University.

ASSISTANTSHIPS are available through academic departments and are awarded on the basis of qualifications of the applicant. The number of available positions varies from department to department. Each appointment requires a considerable amount of time and precludes other employment. The academic year stipend ranges from $3,000 to $3,200. In addition, the University pays the tuition differential for all out-of-state assistants. Graduate students who desire consideration for such positions should write to the Department Head in their major area of study.

RESIDENCE HALL LEADERSHIP AWARDS are available to qualifying graduate students who have completed at least one semester of study at Eastern Michigan University. Awards are made by a committee which considers evidence of leadership ability. Award recipients are expected to provide leadership in the residence hall program. Recipients receive up to $850 per academic year (Fall and Winter semesters) which is credited toward their residence hall charges. Applications are available from the Housing Office, Dining Commons I, Ypsilanti, MI 48197.

NATIONAL DIRECT STUDENT LOANS (NDSL) are available through the Office of Financial Aid. These loans are
long-term loans with deferred repayment on principal and interest until the students complete their studies or are no longer enrolled in at least half-time studies. The repayment period begins nine months after program completion or termination of at least half-time studies and the interest charged is three percent simple interest. The maximum loan to a graduate student is $2500 per academic year. Loans are awarded to students who demonstrate need by filing a Financial Aid Form (FAF) and who submit the Eastern Michigan University application for financial aid. Contact The Office of Financial Aid for application deadline information.

GUARANTEED STUDENT LOANS (in some states, Federally Insured Loans) are available from participating banks, savings and loan associations, and credit unions. Graduate students can borrow up to $2500 per year in most states (including Michigan). These are long-term loans on which principal payments are deferred during periods in which the student is enrolled for at least half-time study. Interest payments are deferred for students whose adjusted family income is less than $25,000. During the repayment period, interest charged on the loan is at the rate of seven percent simple interest. Most lenders participate on a customer or family of customer basis. Students should contact their home town lenders for application materials. Students who are Michigan residents and who are denied loans because they have no customer relationship with a bank, or who are denied by their bank should see a financial aid adviser for information about the Michigan State Direct Loan Program.

COLLEGE WORK-STUDY employment is available to qualifying students approved by the Office of Financial Aid. Students must demonstrate need by submitting the Financial Aid Form (FAF) and must submit the Eastern Michigan University application for financial aid. Approved students are eligible to work part-time (20 hours per week maximum) at on-campus and participating off-campus agencies. Hourly pay generally ranges from $2.50 to $3.50 per hour. Placement assistance is available at the Student Employment Office. Application dates are the same as those for the National Direct Student Loan.

GRADUATE SCHOOL SCHOLARSHIP FUND

A limited number of grants will be available to full time students in the form of scholarships at $200 each per academic year (fall and winter semesters). They will be awarded on a competitive basis to scholarship applicants with the highest undergraduate grade point averages. The awards are made once a year prior to the fall semester and will be given in the amount of $100 each semester upon confirmation of enrollment. In cases where students have the same overall grade point averages, the grade point average in the discipline to which the student is admitted will be computed and the grant determined on that basis. This grant will be open to any full time graduate student, full time being at least eight (8) hours per semester.

These grants may be renewed for a second year of study through reappraisal and competition with new applicants. During the fall and winter semesters, scholarship awards in the amount of $50.00 will be available to part time graduate students. These awards are available only to new EMU graduate students, and are available on a one time, non-renewable basis. To be eligible an applicant must:

a) possess a 3.0 or higher undergraduate grade point average; and
b) be regularly admitted to one of Eastern’s graduate degree programs.

Other Financial Aid

Contact the Office of Financial Aid, 212 Pierce (487-0455).
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 112 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.

THE UNIVERSITY BUILDINGS AND PLANT

FREDERICK ALEXANDER MUSIC HALL

Immediately adjacent to Pease Auditorium, this building, completed in 1960, houses the Department of Music offices, practice studios and large rehearsal halls.

RICHARD G. BOONE BUILDING

Built in 1914 as an administration building, the Boone Building now houses the College of Education offices and classrooms, and a post office substation.

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. It is one of the largest in the state. The complete field house floor has been hard surfaced and the eight-lap-to-a-mile track has been surfaced with Grasstex, providing one of the finest indoor tracks found anywhere. This facility also has a basketball court, three tennis courts, eight badminton and three volleyball courts in the infield. The present seating capacity for basketball is 5,500.

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 Cashiers for the payment of tuition and room and board.

CAREER PLANNING AND PLACEMENT CENTER

Formerly the D'Ooge residence, this facility, located on the corner of Forest and Lowell, provides offices, records, and interview rooms for career planning, student part-time and summer employment, and career placement for graduating seniors and alumni.

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 480,000 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 Audio-Visual Center complements the library collection with non-book materials and a listening center.

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 Educational Television and Foreign Languages and Literature departments. The building originally was opened in 1929 and was remodeled in 1967.

BERTHA M. GOODISON HALL

This building at present houses the offices of Associate Vice-President for Student Affairs, Dean of Students, Student Government, Student Publications, Minority Affairs, Campus Life, Veteran's Affairs, Women's Commission, Upward Bound, International Studies, Contemporary Issues, Humanities Program, Faculty Assembly, Continuing Education, Center for Afro-American Studies, and Student Organization offices.

MARY GODDARD HALL

This building, erected in 1955, is primarily a residence hall but, in addition, houses the University Computing Center, classroom space for Industrial Education, and offices for the Humanities Program.

J. M. HOVER LABORATORY

The building, completed in 1941, houses laboratories of the Department of Biology, also a greenhouse and plant laboratory, and the Bio-career Center.

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.

JULIA ANNE KING HALL

Renovated in 1971 to house the Music Department, head of the department, music practice rooms and faculty; also, the Nursing Education Program, the Dean of the College of Human Services, Occupational Therapy, the Medical Technology Program, and the University radio station, WEMU.

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 and a large ballroom.
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 Speech and Dramatic 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 and Military Science.

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 and Art classrooms.

J. M. B. SILL BUILDING

J. M. B. Sill Building houses classrooms and offices for the Departments of Fine Arts and Industrial Technology and Industrial Education, art galleries and large lecture halls used for classes in English, history, biology and earth sciences.

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.

MARY ANN STARKWEATHER HALL

This building, the gift of Mrs. Mary Ann Starkweather, was erected in 1897 and was remodeled and modernized in 1961. Starkweather Hall is the home of Campus Interact Center, which provides services for the University community and visitors. Interact programs include the Parent's Association, EMU Candids, Information Center, campus visitations and tours.

EDWIN A. STRONG

PHYSICAL SCIENCE BUILDING

This building, opened in the fall of 1957, houses the Departments of Physics and Astronomy and of 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, Personnel 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 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.

A set of three contemporary eleven-story high-rise towers (Hoyt-Pittman-Hill) provide the newest of the campus residential offerings. These buildings are not attached, but are centered around a landscaped court and share a detached, one-story dining hall. Hoyt Hall serves the campus and community as an attractive conference center, while the remaining two units offer a panoramic view to approximately 950 students.

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 1950's, 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-1960's, 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 1960's, are located about one mile west of the main campus, near the intercollegiate athletic facilities. These apartments are of town house 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 1970's. 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. LOESELL FIELD LABORATORY

Located west of the campus, this tract of about 21 acres was dedicated in 1958 to the memory of Clarence M. Loesell, 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 16 tennis courts, five large play fields suitable for field hockey, football, practice baseball diamonds and women's sports. Recently constructed is the equivalent of four softball diamonds or two football fields—all under light for night-time 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 is used for direct instruction, observation and demonstration. Equipped television studios are located in the Ford Building. Equipment includes six vidicon cameras, audio and projection devices.

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. Two students, selected by a student committee, also sit on the Board. The President of the University is an ex-officio member.

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: Carolyn Ohst Embree

The Office for Alumni Relations serves nearly 55,000 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.

Some of the special activities include Homecoming, Alumni Day, club meetings, travel, theatre nights, golf out-
FACULTY AND STAFF

A

Abbott, Richard H. (1966), Professor, History and Philosophy.
Ph.D., University of Wisconsin

Abramson, Armand R. (1967), Associate Professor, Music.
M.M., Eastman School of Music

Adams, J. Richard (1960), Professor, Health, Physical Education, Recreation and Dance.
Ph.D., University of Michigan

Adams, Leah D. (1969), Associate Professor, Curriculum and Instruction.
Ph.D., University of Michigan

Agase, Alex A. (1977), Director, Athletics.
B.S., University of Illinois

Albritton, Thelma P. (1961), Associate Professor, Special Education.
M.Ed., University of Oregon

Aldridge, Henry B. (1972), Associate Professor, Speech and Dramatic Arts.
Ph.D., University of Michigan

Allen, Irene A. (1968), Professor, Curriculum and Instruction.
Ed.D., Ball State University

Allen, Thomas P. (1966), Assistant Professor, English Language and Literature.
Ph.D., Rice University

Amos, Charles (1975) Assistant Professor, Music.
Ph.D., University of Iowa

Anderson, Charles T. (1955), Professor, Chemistry.
Ph.D., Ohio State University

Anderson, Frederick M. (1970), Professor, History and Philosophy.
Ph.D., Harvard University

Anderson, I. Normaje (1948), Associate Professor, Administrative Services and Business Education.
M.A., University of Michigan

Anderson, John E. (1977), Assistant Professor, Economics.
Ph.D., Claremont Graduate School

Anderson, Marvin C. (1963), Associate Professor, Art.
M.F.A., Cranbrook Academy of Art

Anderson, Robert L. (1957), Professor, Psychology.
Ph.D., New York University

Anderson, Roberta (1977), Assistant Professor, Special Education.
M.A., Eastern Michigan University

Anderson, Thomas C. (1972), Associate Professor, Economics.
Ph.D., University of California

Andrew, Ann (1969), Assistant Professor, Center of Educational Resources.
M.A.L.S., University of Michigan

Andrews, Naomi Madgett (1968), Professor, English Language and Literature.
M.Ed., Wayne State University

B.A., Michigan State University

Angelocci, Angelo A. (1965), Professor, Special Education.
Ph.D., Wayne State University

Angle, James B. (1964), Associate Professor, English Language and Literature.
M.A., Kansas State University

Antochia, Sergio (1968), Associate Professor, Operations Research and Information Systems.
M.B.A., Wayne State University

Ashley, Charles R. (1964), Assistant Professor, Marketing.
M.B.A., University of Michigan

Aitchison, Ben (1978), Instructor, Occupational Therapy.
M.Ed., Georgia State University

August, Veronica (1975), Instructor, Music.
M.M., Indiana University

Avedon, Barry (1966), Associate Professor, Art.
M.F.A., Rochester Institute of Technology

Avne, Lillian L. (1969), Associate Professor, Health, Physical Education, Recreation and Dance.
M.A., Texas Women's University

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Sawyer, John E. (1959), Associate Professor, Mathematics.
Ph.D., University of Wisconsin

Sawyer, Robert (1976), Department Head, Professor, Physics and Astronomy.
Ph.D., University of California

Sawyer, Ronald J. (1965), Professor, Biology.
Ph.D., University of Illinois

Richmond-Abbott, Marie L. (1972), Assistant Professor, Sociology.
Ph.D., Florida State University

Ristau, Robert A. (1973), Department Head; Professor, Administration Services and Business Education.
Ph.D., University of Wisconsin

Roberts, Lawrence P. (1959), Associate Professor, Social Foundations.
Ph.D., University of Michigan

Rokusek, H. James (1964), Department Head; Professor, Industrial Education.
Ph.D., University of Maryland

Romkema, Robert J. (1975), Vice-President for Business and Finance and Treasurer to the Board.
B.S.C.E., Michigan State University

Rosemergy, S. Daniel (1977), Manager, Award Processing, Financial Aid.
M.A., University of Michigan

Ross, Frank E. (1966), Professor, English Language and Literature.
M.A., DePaul University

Rossiter, Margaret L. (1968), Associate Professor, History and Philosophy.
Ph.D., Bryn Mawr College

Roth, Alfred C. (1967), Assistant Professor, Industrial Education.
M.A., Ohio University

Roth, Earl A. (1954), Dean, College of Business; Professor, Marketing.
Ed.D., Indiana University

Roth, Richard F. (1969), Associate Professor, Physics and Astronomy.
Ph.D., Princeton University

Ruggie, Leo A. (1976), Instructor, Accounting and Finance.
Ph.D., Iowa State University

Ruihley, Glenn R. (1968), Assistant Professor, English Language and Literature.
Ph.D., University of Wisconsin

Ryan, Patricia R. (1966), Associate Professor, Sociology.
Ph.D., University of Michigan

Saupe, Frances H. (1952), Assistant Professor, Center of Educational Resources.
M.S.L.S., University of Illinois

M.S.E., University of Michigan

Sayegh, Matilda Y. (1970), Assistant Professor, Health, Physical Education, Recreation and Dance.
Ph.D., University of Michigan

Schaub, Raymond E. (1969), Associate Professor, Foreign Languages and Literature.
Ph.D., Rice University

Schefter, Barbara K. (1976), Instructor, Nursing Education.
M.S., University of Michigan

Scherer, Lester B. (1969), Professor, History and Philosophy.
Ph.D., Northwestern University

Schieler, Joan A. (1973), Academic Adviser, Academic Services Center.
M.B.A., Eastern Michigan University

Schlaff, H. Lee (1974), Assistant Professor, Accounting and Finance.
Ph.D., University of Missouri

Schmell, Stephen E. (1970), Associate Professor, Chemistry.
Ph.D., Cornell University

Schmitz, Robert M. (1969), Assistant Director of Accounting.
B.A., Eastern Michigan University

Schumaker, Jean (1977), Instructor, Nursing Education.
M.S., University of Wisconsin-Madison

Schwartz, Ellen (1977), Assistant Professor, Art and Humanities.
M.A., Institute of Fine Arts, New York

Scheffe, Richard (1976), University Photographer, Information Services.

Scott, James E. (1972), Assistant Dean of Students.
M.A., Eastern Michigan University

Scott, Jean O. (1964), Assistant Professor, Curriculum and Instruction.
M.A., Eastern Michigan University

Scott, Ronald M. (1959), Professor, Chemistry.
Ph.D., University of Illinois

Selby, Carol E. (1968), Associate Professor, Center of Educational Resources.
M.A., University of Utah

Sell, Delores S. (1977), Instructor, Nursing Education.
M.S.N., Wayne State University

Shankweiler, Beverly A. (1970), Assistant Professor, Art.
M.A., Eastern Michigan University

Sharp, David W. (1962), Professor, Art.
M.F.A., State University of Iowa

Sheard, John F. (1963), Professor, Health, Physical Education, Recreation and Dance.
P.E.D., Indiana University

Shell, Claude L., Jr. (1967), Department Head, Professor, Management.
Ph.D., Southern Illinois University

Shellenbarger, Billy (1976), Assistant Men's Basketball Coach, Athletics.
B.A., Eastern Michigan University

Shemesh, Lee F. (1969), Instructor, Special Education.
M.A., Wayne State University

Shoultz, Paul (1977), Associate Athletic Director, Athletics.
M.A., Miami University

Shuter, William F. (1968), Professor, English Language and Literature.
Ph.D., University of Wisconsin

Silver, Robert (1966), Department Head, Professor, Physics and Astronomy.
B.S., Eastern Michigan University


Simmons, Harold E. (1960), Assistant Professor, Economics. M.A., Michigan State University
Simms, Michael D. (1977), Instructor, Industrial Education. M.Ed., Colorado State University
Simone, Marvin L., (1971), Professor, Chemistry. M.S., Michigan State University
Sinclair, Karen P. (1960), Associate Professor, Biology. Ph.D., University of Michigan
Sinclair, Frank L. (1960), Associate Professor, Biology. M.S., Michigan State University
Snyder, Carl D. (1957), Professor, Economics. Ph.D., University of Illinois
Solomon, Samuel R. (1960), Professor, Political Science. Ph.D., Syracuse University
Sperling, William D. (1962), Assistant Professor, Biology. M.A., University of California
Sperling, William D. (1970), Assistant Professor, Biology. Ph.D., University of Michigan
Spieser, Sharman D. (1967), Assistant Professor, Sociology. M.S., Eastern Michigan University
Spieser, Sharman D. (1972), Assistant Director, Upward Bound. B.A., Michigan State University
Stevens, Kenneth W. (1972), Assistant Professor, Speech and Dramatic Arts. M.A., University of Cincinnati
Stevens, Suzanne J. (1970), Assistant Professor, Biology. M.A., Eastern Michigan University
Stevens, Suzanne J. (1976), Assistant Professor, Biology. M.A., Eastern Michigan University
Steele, Peggy A. (1956), Professor, Health, Physical Education, Recreation and Dance. Ph.D., University of Michigan
Steele, Suzanne J. (1970), Assistant Professor, Biology. M.A., Eastern Michigan University
Stock, Michael J. (1975), Assistant Professor, Psychology. Ph.D., Wayne State University
Street, Scott W. (1961), Professor, Curriculum and Instruction. Ed.D., Wayne State University
Stribel, William J. (1967), Assistant Professor, Industrial Education. M.S., University of Michigan
Sroufe, Marvin L. (1966), Assistant Professor, Special Education. Ph.D., Wayne State University
Sroufe, Marvin L. (1966), Assistant Professor, Special Education. Ph.D., Wayne State University
Street, Scott W. (1961), Professor, Curriculum and Instruction. Ed.D., Wayne State University
Simms, Michael D. (1977), Instructor, Industrial Education. M.Ed., Colorado State University
Simone, P. George (1960), Professor, Biology. M.S., Michigan State University
Simone, P. George (1960), Professor, Biology. M.S., Michigan State University
Steffes, Harry J. (1970), Instructor, Accounting and Finance. M.S., University of Michigan
Steele, Peggy A. (1956), Professor, Health, Physical Education, Recreation and Dance. Ph.D., University of Michigan
Steele, Peggy A. (1956), Professor, Health, Physical Education, Recreation and Dance. Ph.D., University of Michigan
Steele, Peggy A. (1956), Professor, Health, Physical Education, Recreation and Dance. Ph.D., University of Michigan
Stein, William J. (1972), Assistant Professor, Biology. M.A., Eastern Michigan University
Stein, William J. (1972), Assistant Professor, Speech and Dramatic Arts. M.A., University of Cincinnati
Stevens, Kenneth W. (1972), Assistant Professor, Speech and Dramatic Arts. M.A., University of Cincinnati
Stevens, Suzanne J. (1970), Assistant Professor, Biology. M.A., Eastern Michigan University
Stevens, Suzanne J. (1970), Assistant Professor, Biology. M.A., Eastern Michigan University
Stevens, Suzanne J. (1970), Assistant Professor, Biology. M.A., Eastern Michigan University
Stock, Michael J. (1975), Assistant Professor, Psychology. Ph.D., Wayne State University
Street, Scott W. (1961), Professor, Curriculum and Instruction. Ed.D., Wayne State University
Strebel, William J. (1976), Assistant Professor, Industrial Education. M.S., University of Iowa
Strickland, Gary (1970), Instructor, Health, Physical Education, Recreation, and Dance; Athletic Trainer, Athletics. M.S., Western Illinois University
Studebaker, David W. (1969), Assistant Professor, Sociology. M.S., Eastern Michigan University
Stuffle, Judith T. (1976), Assistant Professor, Speech and Dramatic Arts. M.A., University of Michigan
Sullivan, John M. (1958), Professor, Chemistry. Ph.D., University of Missouri
Sullivan, John M. (1958), Professor, Chemistry. Ph.D., University of Missouri
Sullivan, Thomas (1971), Director of Housing. M.E.D., Kent State University
Suryanarayana, Manda B. (1969), Associate Professor, Mathematics. Ph.D., University of Michigan
Swisher, William V. (1965), Associate Professor, Speech and Dramatic Arts. M.A., University of Michigan
Szabo, Edward J. (1968), Professor, Music. Ed.D., Columbia University
T

Tammany, David D. (1966), Professor Art. M.F.A., Tulane University
Teal, Mary D. (1968), Professor, Music. Ph.D., University of Michigan
Tebo, Judith T. (1976), General Supervisor, Student Accounting. M.A., Eastern Michigan University
Terrry, Janice J. (1966), Professor, History and Philosophy. Ph.D., University of London
Teske, Yvonne R. (1970), Assistant Professor, Occupational Therapy. M.A., University of Michigan
Thalhofer, Nancy N. (1969), Assistant Professor, Sociology. Ph.D., University of Michigan
Thayer, Louis C. (1969), Associate Professor, Guidance and Counseling. Ed.D., University of Illinois
Thayer, Robert E. (1972), Director of Accounting. M.A., Eastern Michigan University
Thomas, Clinton E. (1959), Associate Professor, Physics and Astronomy. M.S., University of Michigan
Thrasher, Gerald R., Jr. (1975), Director, Institutional Research. Ph.D., Indiana University
Tibbals, Robert T. (1965), Assistant Professor, Curriculum and Instruction. Ed.D., Eastern Michigan University
Timko, Arthur (1970), Program Director, WEMU. M.A., Eastern Michigan University
Tirtha, Ranjit (1970), Professor, Geography and Geology. Ph.D., University of North Carolina
Tothill, Herbert (1960), Professor, Guidance and Counseling. Ph.D., Syracuse University
Trithart, Eleanor (1976), Instructor, Home Economics. M.P.H., University of Michigan
Trotchet, Daniel (1968), Assistant Professor, Physics and Astronomy. Ph.D., University of Michigan
Trosko, Fred (1952), Associate Professor, Health, Physical Education, Recreation, and Dance.
Ph.D., University of Wisconsin

Trowbridge, Ronald L. (1965), Associate Professor, English Language and Literature.
Ph.D., University of Michigan

Truzzi, Marcello (1974), Department Head, Professor, Sociology.
Ph.D., Cornell University

Tschirhart, David (1967), Graphic Designer, Information Services.

Tse, Enoch C. (1967), Assistant Professor, Mathematics.
Ph.D., University of Michigan

Turner, Daniel S. (1965), Professor, Geography and Geology.
Ph.D., University of Michigan

Tweed!, Carl B., Captain (1976), Assistant Professor, Military Science.
Ph.D., University of Washington

Turowski, William (1977), Athletic Business Manager, Athletics.
B.B.A., Western Michigan University

Trowbridge, Ronald L. (1965), Associate Professor, English Language and Literature.
Ph.D., University of Michigan

Tymn, Marshall B. (1965), Associate Professor, English Language and Literature.
Ph.D., University of Michigan

U

Ufford, Mary Solanus, (1972), Associate Professor, Special Education.
Ph.D., Wayne State University

Ullman, Nelly S. (1963), Associate Professor, Mathematics.
Ph.D., University of Michigan

Upshur, Jiu Hwa (1971), Assistant Professor, History and Philosophy.
Ph.D., University of Michigan

V

VanHaren, John E. (1960), Professor, Art.
M.A., University of Wisconsin

Van Riper, B. W. (1968), Professor, Guidance and Counseling.
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, University Apartments.
M.A., Eastern Michigan University

Victor, Gary M. (1974), Assistant Professor, Administrative Services and Business Education.
J.D., University of Toledo

Vielhaber, Mary E. (1977), Instructor, Management.
M.A., University of Michigan

Vile, Richard C. (1970), Assistant Professor, Mathematics.
Ph.D., Cornell University

Villegas, Francisco (1930), Professor, Foreign Languages and Literatures.
Ph.D., University of Michigan

Voght, Geoffrey M. (1971), Assistant Professor, Foreign Languages and Literatures.
Ph.D., University of Michigan

Ph.D., Michigan State University

W

Waffle, Elizabeth L. (1968), Associate Professor, Biology.
Ph.D., Iowa State University

Wahi, Kishor N. (1967), Associate Professor, Educational Psychology.
Ph.D., University of Michigan

Waidley, John W. (1968), Associate Professor, Guidance and Counseling.
Ed.D., New York University

Walker, Glenn K. (1976), Assistant Professor, Biology.
Ph.D., University of Maryland

Wallace, Dale C. (1969), Professor, Biology.
Ph.D., Cornell University

Walter, James R. (1964), Assistant Professor, Mathematics.
Ph.D., Wayne State University

Waltz, James C. (1968), Professor, History and Philosophy.
Ph.D., Michigan State University

Ward, Robert M. (1969), Associate Professor, Geography and Geology.
Ph.D., University of Michigan

Ward, Stanley A. (1968), Assistant Dean, Academic Records and Teacher Certification.
M.A., Eastern Michigan University

Warr, Bruce L. (1969), Associate Professor, Sociology.
Ph.D., University of Michigan

M.A., Eastern Michigan University

Wask, Claudia B. (1963), Associate Professor, Health, Physical Education, Recreation and Dance.
M.S., Eastern Michigan University

Wasserman, Ira M. (1969), Assistant Professor, Sociology.
Ph.D., University of Michigan

M.S.W., State University of Iowa

Wawrzaszek, Frank J. (1957), Professor, Special Education.
Ed.D., Boston University

Webb, Margaret J. (1967), Assistant Professor, English Language and Literature.
Ph.D., University of Illinois

Weber, LaVerne W. (1961), Associate Director, Center of Educational Resources; Head, Media Services, Assistant Professor.
Ph.D., University of Michigan

Weeks, John A. (1968), Associate Professor, Industrial Education.
M.S., Bradley University

Weiser, Jerome A. (1967), Associate Professor, Curriculum and Instruction.
Ed.D., Wayne State University

Welch, Marilyn (1976), Instructor, Nursing Education.
M.S.N., Wayne State University

Weller, Ralph B. (1975), Assistant Professor, Marketing.
Ph.D., University of Nebraska.

Wells, Phillip G. (1959), Professor, Social Foundations.
Ed.D., University of Pennsylvania

Wescott, John T. (1951), Associate Professor, Industrial Education.
M.A., Wayne State University

West, Bruce D. (1969), Associate Professor, Chemistry.
Ph.D., University of Wisconsin

Westerman, W. Scott, Jr. (1971), Department Head, Professor, Curriculum and Instruction.
Ph.D., University of Michigan

Westman, Alida S. (1972), Associate Professor, Psychology.
Ph.D., Cornell University

Westrum, Ronald M. (1972), Assistant 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

Wiley, Roger A. (1976), Director of Admissions.
M.Ed., Miami University

Wilkinson, Helen M. (1969), Assistant Professor, Center of Educational Resources.
B.L.S., Pratt Institute

Williams, Floyd, Captain (1974), Assistant Professor, Military Science.
B.A., Park College

Williams, Patricia (1976), Assistant Professor, Art.
M.F.A., Indiana University

Williams, Robert J. (1966), 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), Associate Professor, Educational Psychology.
Ed.D., University of Rochester
Zahratka, Michael (1966), Associate Professor, Art.  
M.F.A., Syracuse University  
Zambito, Stephen C. (1963), Professor, Curriculum and Instruction.  
M.D., University of Iowa  
Zellers, Parker R. (1964), Professor, Speech and Dramatic Arts.  
Ph.D., State University of Iowa  
Pharm.D., University of Michigan  
Zickgraf, P. Louis (1948), Professor, History and Philosophy.  
Ph.D., University of Illinois

**AFFILIATED LECTURERS**

**LECTURERS IN MEDICAL TECHNOLOGY**

Caraway, Wendell (Ph.D.) .......................... Clinical Chemist  
McLaren General Hospital  
Correll, Judith ................................. Teaching Supervisor  
W. A. Foote Memorial Hospital  
B.S., Eastern Michigan University  
Dunoff, Morris (Ph.D.) .......................... Clinical Microbiologist  
McLaren General Hospital  
Foley, Hugo (M.D.) ............................. Director of Laboratories  
W. A. Foote Memorial Hospital  
Fly, Marie N. (M.D.) ............................ Pathologist  
Oakwood Hospital  
M.D., Wayne State University  
Goldman, Robert T. (M.D.) ........................ Pathologist  
Wayne County General Hospital  
M.D., University of Michigan  
Herschman, Barry (M.D.) .......................... Associate Director of Laboratories, Providence Hospital  
Imperial, R. (M.D.) ................................. Director of Anatomical Pathology  
W. A. Foote Memorial Hospital  
M.D., University of Santo Tomas, Manila, P.I.  
Kopp, Clemens M. (M.D.) .......................... Director of Laboratories  
Port Huron Hospital  
M.D., Ottawa University Medical School  
Libcke, John H. (M.D.) ............................ Director of Laboratories  
Pontiac General Hospital  
M.D., Wayne State University  
Littler, Ellsworth R. (M.D.) .......................... Pathologist  
Wayne County General Hospital  
M.D., McGill University  
Liu, Henry Y. (M.D.) ............................. Assistant Director of Laboratories  
Providence Hospital  
M.D., National Taiwan University  
Mainwaring, Rosser L. (M.D.) .......................... Director of Laboratories  
Oakwood Hospital  
M.D., Wayne State University  
McNair, Ruth Davis ................................. Biochemist  
Providence Hospital  
Ph.D., Wayne State University  
Meyer, Kenneth R. (M.D.) .......................... Associate Director of Laboratories, Oakwood Hospital  
M.D., University of Pennsylvania  
Mikat, Kurt W. (M.D.) ............................. Director of Laboratories  
McLaren General Hospital  
M.D., University of Michigan  
Murphy, E. Grant (M.D.) .......................... Pathologist  
McLaren General Hospital  
M.D., University of Oklahoma  
Schmidt, Robert W. (M.D.) .......................... Pathologist  
Wayne County General Hospital  
M.D., Ohio State University  
Shively, Wyant J. (M.D.) .......................... Director of Laboratories  
Providence Hospital  
Silverman, Barry (M.D.) .......................... Pathologist  
Wayne County General Hospital  
M.D., University of Michigan  
Truant, Joseph P. ................................. Microbiologist  
Providence Hospital  
Ph.D., University of Western Ontario  

**Y**

Yager, Jay R. (1968), Associate Professor, Art.  
M.F.A., University of Wisconsin  
Yahrheater, Arthur J. (1968), Associate Professor, Speech and Dramatic 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), Associate Professor, Music.  
A.Mus.D., University of Michigan  
Ph.D., Purdue University  
Young, Phyllis A. (1972), Instructor, Home Economics.  
M.A., Eastern Michigan University  
Yousef, Zakkhour J. (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 Dean, Academic Records and Teacher Certification.  
Ed.D., Eastern Michigan University
Wheeler, J. D. (M.D.) ........................................ Pathologist
M.D., Northwestern University

LECTURERS IN PSYCHOLOGY
Ellis, Norman .................................. Consulting Psychologist
Ph.D., University of Kansas

Jackson, Newton .............................. Director of Psychology
Ph.D., University of Portsmouth

Ring, Elisabeth ................................. Chief Psychologist
Ph.D., University of Minnesota

Meyer, Robert ................................. Psychological Consultant
Ph.D., University of Detroit

Splane, Barbara ............................... Staff Psychologist
M.A., Wayne State University

EMERITUS FACULTY

A
Anderson, Carl R., M.A., Associate Professor Emeritus, History,
Vice President, Public Affairs.

B
Ballew, M. Esther, A.M., Associate Professor Emeritus, English.
Bates, Wanda C., A.M., Associate Professor Emeritus, Order Librar-
ian.
Bensen, Alice R., Ph.D., Professor Emeritus, English Language and
Literature.
Bentley, Mabel, A.M., Associate Professor Emeritus, Special Educa-
tion.
Blackenburg, Howard, Ph.D., Professor Emeritus, History.
Boughner, Ruth L., M.S., Associate Professor Emeritus, Physical
Education.
Breedlove, Charles B., Ed.D., Professor Emeritus, Physics and As-
tronomy.
Brownrigg, William J., A.M., Emeritus Director of Academic Advis-
ing.
Brumbaugh, Russell, M.A., Associate Professor Emeritus, Educa-
tion.

C
Carr, Marvin S., Ph.D. (Ch.E.), Professor Emeritus, Chemistry.
Cleveringa, Frederick B., A.M., Assistant Professor Emeritus, Li-
brary.
Cooper, Virginia A., M.A., Associate Professor Emeritus, English
Language and Literature.
Crouch, William E., M.A. Associate Professor Emeritus, Health,
Physical Education and Recreation.
Curtis, Martha, Ph.D., Professor Emeritus, Natural Science.

D
DeVries, Harry, Ph.D., Professor Emeritus, History and Social Sci-
cences.
Dume, Thomas L., Ph.D., Professor Emeritus, English Language and
Literature.

E
Early, Madeline, Ph.D., Professor Emeritus, Mathematics.
Elliot, Lucy A., A.M., Manager Emeritus, Women’s Residence Halls
and Professor Emeritus, Head, Department of Home Economics.
Engelsman, Anthony, A.M., Professor Emeritus, Political Science.
Erickson, E. Walfrid, Ph.D., Professor and Head Emeritus, Library.
Erikson, Edith A., A.M., Associate Professor Emeritus, Business.

F
Fagerstrom, Simon E., Ph.D., Professor Emeritus, Head, Department
of History and Social Sciences.
Fenwick, Ruth, M.A., Associate Professor Emeritus, Music.
Fitch, William D., Ph.D., Professor Emeritus, Music.
Foreman, Olga Sirola, M.D., Physician Emeritus, Snow Health
Center.
French, Sophia L., M.A., Assistant Professor Emeritus, Special Educa-
tion.

G
Gates, Mary, Ph.D., Professor Emeritus, Education.
Gesler, Ralph, M.A., Associate Director Emeritus, Field Services.
Giles, Richard A., Ph.D., Professor Emeritus, Health, Biology.
Glasgow, James H., Ph.D., Dean Emeritus, Graduate School; Depart-
ment Head and Professor, Geography and Geology.
Goings, Edmond W., M.S., Professor Emeritus, Mathematics, In-
structional Computer Service.
Gotts, M. Margaret, M.A., Professor Emeritus, Mathematics.

H
Harris, Augusta, M.A., Professor Emeritus, Health, Physical
Education and Recreation.
Hester, Kathleen, Ph.D., Professor Emeritus, Education.
Hill, Susan B., M.A., Dean of Students Emeritus.
Hubbell, Paul E., Ph.D., Professor Emeritus, History.

J
James, Dorothy, M.M., Professor Emeritus, Music.
Jordan, Hoover, H., Ph.D., Professor Emeritus, English Language
and Literature.

K
Kelly, Clara, A.M., Associate Professor Emeritus, Home Economics.

L
Lamkin, Ervin, M.A., Associate Professor Emeritus, Chemistry.
Lamming, Dorothy, M.F.A., Professor Emeritus, Art.
Langman, Muriel P., Ph.D., Professor Emeritus, Curriculum and In-
struction.
Langworthy, Lucille A., A.M., Associate Professor Emeritus, Super-
vising Teacher, High School.

M
Maddox, Notley S., Ph.D., Professor Emeritus, English Language
and Literature.
McAndless, Thelma, M.A., Professor Emeritus, English Language
and Literature.
McCalla, Helen G., Controller Emeritus.
Menzi, Leonard W., A.M., Associate Professor Emeritus, Principal, Roosevelt School.
Miller, Marjorie M., M.A., Professor Emeritus, English Language and Literature.
Morgan, Haydn M., A.M., L.H.D. (Hon.), Professor Emeritus, Head, Department of Music.
Muckenhirn, Erma F., Ph.D., Professor Emeritus, Education.
Myers, Allen, Ph.D., Professor Emeritus, Special Education.

N
North, Vera O., M.S., Associate Professor Emeritus, Supervising Teacher, Business Studies.

O
O'Connor, M. Ethel, A.M., Associate Professor Emeritus, Supervising Teacher, Elementary.
Olds, Lloyd W., Dr. P.H., Professor Emeritus, Head, Department of Health, Physical Education, Recreation and Athletics.

P
Parsons, Karl A., M.S., Professor Emeritus, Physics and Astronomy.
Pate, Robert S., Ph.D., Professor Emeritus, Head, Mathematics.
Peterson, Ralph G., M.A., Associate Professor Emeritus, Curriculum and Instruction.

R
Riley, Maurice W., Ph.D., Professor Emeritus, Music.
Risk, Norman W., M.A., Professor Emeritus, Industrial Education.
Robinson, Julius M., Ed.D., Dean Emeritus, Summer and Evening Sessions; Professor Emeritus, Business Studies.
Robinson, Margaret M., M.A.L.S., Associate Professor Emeritus, Education.
Rogers, Agnes L., M.A., Associate Professor Emeritus, Special Education and Occupational Therapy.
Roser, Gertrude, A.M., Assistant Professor Emeritus, Principal, Rackham School of Special Education.
Rudin, Helen B., M.A., Counselor Emeritus, Counseling Center.
Russell, Wilma I., Ph.D., Professor Emeritus, Curriculum and Instruction.

S
Sattler, John W., Ph.D., Professor Emeritus, Head, Speech and Dramatic Arts.
Simpson, John W., Ph.D., Professor Emeritus, Economics.
Steffek, Ralph L., Ph.D., Assistant Director Emeritus, Field Services.
Stevens, Florence L., M.A.L.S., Assistant Professor Emeritus, Center of Educational Resources.
Stude, Earl K., M.S., Director Emeritus, Field Services, Assistant Professor Emeritus, Educational Leadership.
Sundquist, Jean S., M.M., Associate Professor Emeritus, Music.
Swales, Frances E., M.A., Professor Emeritus, Occupational Therapy.
Swete, Helen F., Associate Professor Emeritus, Art.

T
Tow, Sadie, A.M., Assistant Professor Emeritus, Supervising Teacher, Elementary.
Treado, Bernard M., M.A., Associate Professor Emeritus, Special Education.

U
Underbrink, Eula, A.M., Associate Professor Emeritus, Home Economics.
STATISTICAL INFORMATION
DIPLOMAS AND CERTIFICATES GRANTED JULY 1, 1976–JUNE 30, 1977

<table>
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<tr>
<th>Date Granted</th>
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Deduct, counted twice .......................................................... 916
Total number of students graduated ........................................ 4,110

Two-Year Flexible Program in Business (Non-Teaching) .................. 4
Two-Year Industrial Arts Technician Certificates (Non-Teaching) ...... 1
Total Specialist Degrees ...................................................... 61
Total Master Degrees .......................................................... 1,482
Total Bachelor Degrees ....................................................... 2,351
Total Provisional Teaching Certificates .................................. 1,132
TOTAL .................................................................. 5,026

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VOCATIONAL CERTIFICATE RECOMMENDATIONS 1976–77

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Totals: Business Educ. 98  Home Economics 83  Industrial Educ. 97

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On-campus Enrollment (official):

Winter Semester 1977 ................................................................ 16,950
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Summer Session 1977 (Six and seven and one-half weeks sessions) ........................................................................ 5,681
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