EASTERN MICHIGAN UNIVERSITY

YPSILANTI, MICHIGAN 48197

GOVERNMENT OF THE UNIVERSITY

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

THE BOARD OF REGENTS

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<th>Residence</th>
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<tr>
<td>Beth Wharton Milford</td>
<td>Ypsilanti</td>
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<td>Vice-Chairperson</td>
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<td>Wayne</td>
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<td>Carleton K. Rush</td>
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<td>Mildred Beatty Smith</td>
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<td>George E. Stripp</td>
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<td>Dearborn</td>
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INFORMATION REQUESTS

PLEASE ADDRESS SPECIFIC INQUIRIES TO THE FOLLOWING OFFICES:

Admission (undergraduate) ................................................................. Admissions and Financial Aids, Office of Graduate School
Admission (graduate) ................................................................. Admissions and Financial Aids, Office of Graduate School
Adult Education ........................................................................ Field Services
Alumni Affairs ........................................................................ Alumni Relations
Campus Life .................................................................................... Counseling Center
Campus visits of individuals or groups .................................................. Admissions and Financial Aids, Office of Graduate School
Catalogs (undergraduate) ................................................................. Academic Records and Teacher Certification, Office of Graduate School
Catalogs (graduate) ........................................................................... Academic Records and Teacher Certification, Office of Graduate School
Consultation services to schools .............................................................. Academic Advising Office
Courses of study .................................................................................. Academic Advising Office
Curricular requirements and scheduling ................................................. Academic Advising Office
Degree and Certification requirements ..................................................... Academic Records and Teacher Certification, Office of Graduate School
Fees and financial aids ........................................................................ Student Accounting Office
General welfare and academic progress of individual students ............ Counseling Center
In-Service and Correspondence Courses .............................................. Field Services Office
Living accommodations ........................................................................ Housing Office
Loans ................................................................................................. Admissions and Financial Aids, Office of Placement Center
Opportunities for earning a portion of University expenses ...................... Placement Center
Program information (undergraduate) ....................................................... Admissions and Financial Aids, Office of Graduate School
Program information (graduate) ........................................................... Admissions and Financial Aids, Office of Graduate School
Registration of applicants for teaching, business and industrial positions ........................................ Placement Center
Scholarships and grants-in-aid .................................................................. Placement Center
Speakers for special occasions ................................................................. Field Services Office
Teaching Certification ............................................................................ Academic Records and Teacher Certification, Office of Placement Center
Teaching vacancies ................................................................................. Placement Center
Transcripts .......................................................................................... Placement Center
Transfer credit ......................................................................................... Placement Center
Work offered in the field of assisting impaired children ......................... Special Education Department

Eastern Michigan University
Ypsilanti, Michigan 48197
ADMINISTRATIVE OFFICES

GENERAL ADMINISTRATION

President ................. James H. Brickley
Acting Vice-President for Academic Affairs .. James S. Magee
Vice-President for Business and Finance . Vincent J. Carillo
Acting Vice-President for Student Affairs .. Ralph F. Gilden
Vice-President for University Relations . Gary D. Hawks

Assistant to the President ........ Anthony H. Evans
Affirmative Action Officer ........ Victoria E. Fox
Athletic Director ............ Albert E. Smith

INSTRUCTION

College of Arts and Sciences:
Dean ....................... Donald F. Drummond
Departments:
   Art ................................ Head, Kingsley M. Calkins
   Biology ................................ Head, Herbert H. Caswell, Jr.
   Chemistry ................................ Head, Clark G. Spike
   Economics ................................ Head, Young-job Chong
   English Language and Literature  Head, Milton P. Foster
   Foreign Languages and Literatures  Head, Jean S. Bidwell
   Geography and Geology .............. Head, Ross N. Pearson
   History and Philosophy ............. Head, Ira M. Wheatley
   Mathematics ............................ Head, Pending
   Music .................................... Head, James B. Hause
   Physics and Astronomy .............. Head, Robert Silver
   Political Science ...................... Head, James S. Magee
   Psychology ............................. Head, Samuel Karson
   Sociology ............................... Head, Marcello Truzzi
   Speech and Dramatic Arts          Head, Thomas J. Murray

College of Business:
Dean ........................... Earl A. Roth
Departments:
   Accounting and Finance ............ Head, Pending
   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 ........................... Allen Myers
Associate Dean .................. Francis M. Daly, Jr.
Coordinator of Student Teaching ........ Kenneth Stanley
Departments:
   Curriculum and Instruction  Head, W. Scott Westerman, Jr.
   Education ............................. Head, Francis M. Daly, Jr.
   Educational Leadership ............. Head, Kenneth L. Grinstead
   Educational Psychology .......... Head, Wilbur A. Williams
   Guidance and Counseling .......... Head, John G. Pappas
   Health, Physical Education and Recreation  Head, Patricia L. Cavanaugh
   Special Education ................... Head, Frank J. Wawrzaszek
   Horace H. Rackham School  Principal, Harvey H. Gregerson
   Center for Community Education Director, Jack D. Minzey

College of Human Services:
Dean ........................... Pending

Departments:
   Home Economics ..................... Head, Billie L. Sands
   Medical Technology ................ Adviser, Charles Anderson
   Nursing Education ................ Head, Pending
   Occupational Therapy .............. Director, Lyla M. Spelbring

Applied Science Departments and Programs:
   Assistant Vice-President for Academic Affairs  Raymond LaBounty

Departments:
   Industrial Education .............. Head, H. James Rokusek

Field Services:
   Director ............................ Earl K. Studt
   Conference Coordinator .......... Frederick J. Peters

Programs:
   Black Studies ....................... Director, Gerald McIntosh
   Contemporary Issues ................. Director, Monroe P. Friedman
   International Studies ............... Director, Irma F. Muckenhurm

Academic Services:
Dean ........................... A. P. Marshall
Academic Advising Office:
   Director ............................ Edgar L. Jones, Jr.
   Associate Director ................ M. Virginia Anderson
   Advisers ............................. Leonard E. Bohm
   Judith A. Goodman
   Margaret E. Porter
   Carol P. Russell
   Charles H. Smith
   Benjamin Weiss

Academic Support Services:
   Director ............................ Saad S. Noor
   Coordinator ......................... M. Jeanette McMullan

Center of Educational Resources:
   Director ............................ Fred Blum
   Associate Director (Media) ....... LaVerne W. Weber
   Information Systems ................. Coordinator, Robert D. Keith
   Instructional Computer Services  Director, Edmond W. Goings
   Registration Office ................. Director, Ursula R. Christian
   University Printing ................. Director, Robert A. Benden
   Project Upward Bound ............... Director, Hildred J. Lewis
   Associate Director, Marianne D. Sanborn

Graduate School:
Dean ........................... Pending
   Acting Dean; Associate Dean ........ Clyde LeTarte
   Assistant Dean ..................... Neal F. Hoover

Academic Budget Officer .............. George A. Johnston

Institutional Research Office
   Director, Gerald R. Thrasher, Jr.

Administrative Assistant to the Vice-President for Academic Affairs ........ Charles G. Banciu

SPARD (Special Projects and Research Development)
   Director, Pending
BUSINESS AND FINANCE

Accounting Director (Acting) ............ Robert E. Thayer
Cashier ................................ Natalie M. Bowyer
Chief Fund Accountant .................. Pending
Payroll Supervisor ...................... John D. Sloane
Student Accounting Supervisor ........ Vincent A. Neton
Administrative Systems Director ....... James N. Finzel
Manager of Computer Center .......... George W. Wree
Chief Budget Officer .................... Glen A. Breitner
Fiscal Analysis Director ............... Gerald E. Fulford
Plant Operations and Development ...... Rene E. Hauser
Purchasing Director ..................... William D. Swihart
University Budget Director (Acting) ... Harold R. Hines

STUDENT AFFAIRS

Academic Records and Teacher Certification:
Dean .................................... Everett L. Marshall
Associate Deans ....................... Nancy L. Dahl
........................................ George W. Linn
........................................ Paul J. Zabawa
Assistant Dean ........................ Stanley A. Ward

Admissions and Financial Aids:
Dean .................................... Ralph F. Gilden
Associate Deans ....................... Lee C. Fawcett
........................................ Robert L. Garfield
Assistant Deans ........................ Kathleen Eiler
........................................ Charles M. Falcon
........................................ Fred R. McDaniel
........................................ James E. Olsen
Counselors ............................ Ralph H. Cowan
........................................ Iota Henderson
........................................ Kurt Hill
........................................ Loretta Pirages
........................................ Robert A. Salisbury
........................................ Marcine Westerman

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

Counseling Center:
Dean .................................... Peter T. Hountras
Assistant Dean ........................ Milton Sankar
Counselors ............................. Ruth A. Friedman
........................................ James T. McGraw
........................................ Anne G. Thompson
........................................ John G. Vandenburg

Dean of Students:
Dean .................................... L. Sandy MacLean
Associate Dean ........................ Bette C. White
Assistant Dean ........................ James E. Scott
Student Records ....................... Safdar Husain
Director of Student Life ............... Thomas Otts
Associate Director ..................... Carolyn G. Ohst
Assistant Directors .................... William D. Barnett
........................................ Carol Burke-Fonte

Director of Religious Affairs ........ Charles E. Minneman
Foreign Student Adviser ................ William Cadwallader
Manager of McKenny Union ............ William H. Cobb

Health Services:
Director ................................. Charles H. Frie

Housing:
Director ................................. Dorian G. Sprande
Associate Directors ................. Naomi Chiver
........................................ Floyd R. Lamim
........................................ Charles W. Wyss
Administrative Assistant ............. Thomas Sullivan
Resident Area Coordinators .......... Michael Kuczyk
........................................ James Vieick

Auxiliary Services Director .......... Ralph A. Boggs
Manager of Bookstore ................ E. Wayne Morgan
Manager of Food Service ............. C. Daniel Olson

Minority Affairs:
Director ................................. Leslie K. Bate

Student Publications:
Director ................................ Kenneth Kerber

UNIVERSITY RELATIONS

Alumni Relations:
Director ................................. Pending
Assistant Director ................. Douglas G. Moser

Information Services:
Director ................................. John C. Fountain
News Editor ............................ Kathleen D. Tinne
News Writer ............................ Joanne B. Jordan
News Writer ............................ Bradley J. Simon
Photographer .......................... Richard R. Schwarz
Publications Editor ................... Neil C. Bertran
Associate Publications Editor ....... Ralph Chapman
Assistant Publications Editor ......... Nancy J. Midkiff
Art Director ............................ Henryk Pawlowski
Assistant Art Director ............... William M. Beckler
Sports Information Director ......... John C. Fountain
Assistant Sports Information Directors .................................. James L. Street
........................................ Dale R. Leslie

Personnel:
Director ................................. A. Wayne Douglas
Employee Relations Manager .......... William Smart
Compensation Manager ............... Cynthia C. Otis
Employment Manager .................. Charles Cree
Personnel Officer ........................ Aiko Ryuji

Safety Director ........................ John E. Haye

WEMU-FM:
Station Manager ....................... Richard Jacques
Program Director ...................... Arthur J. Timko
News and Sports Director ............ Sam W. Eile
1975-1976 UNIVERSITY CALENDAR

FALL SEMESTER, 1975

August 28 and 29, Thursday
and Friday .................. Departmental Conference Days
September 1 and 2, Monday and Tuesday .... Move-in Days
September 2, Tuesday ....... Faculty/Staff Conference Day
September 3, Wednesday ........ Classes Begin
November 26-30, Wednesday Noon (12:00)
through Sunday .............. Thanksgiving Recess
December 1, Monday ........ Classes Resume
December 2, Tuesday ........ Faculty/Staff Conference Day
December 3, Wednesday .. Classes Begin

WINTER SEMESTER, 1976

January 4, Sunday .................. Move-in Day
January 5, Monday ................. Classes Begin
February 28-March 2, Saturday
through Tuesday ................ Winter Recess
March 3, Wednesday ............... Classes Resume
April 7, Wednesday ............... Honors Convocation
April 15-18, Thursday (12:00)
through Sunday ................ Easter Recess
April 19, Monday .................. Last Day of Classes
April 20-24, Tuesday
through Saturday ................ Final Examinations
April 24, Saturday ............... Commencement, Winter Semester Closes

SPRING SESSION, 1976

May 3, Monday ....................... Classes Begin
May 31, Monday (No Classes) ........ Memorial Day
June 23, Wednesday ............... Spring Session Closes

SUMMER SESSION, 1976

June 28, Monday ....................... Classes Begin
July 3-5, Saturday
through Monday .............. Independence Day Recess
August 6, Friday ............... Six-Week Session Closes
August 13, Wednesday .......... Summer Session Closes
GENERAL INFORMATION

LOCATION

Eastern Michigan University is located in Ypsilanti, a community of about 80,000 people 30 miles west of Detroit and 7 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 north-south 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 4 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 growing, 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 education, educational leadership, educational psychology, guidance and counseling, curriculum and instruction, special education and health, physical education and recreation.

The College of Arts and Sciences includes departments of art, biology, chemistry, economics, English language and literature, foreign languages and literatures, geography and geology, history and philosophy, mathematics, physics and astronomy, political science, psychology, sociology, and speech and dramatic arts.

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

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

Eastern offers specialized non-degree courses in pre-dentistry, pre-engineering, pre-forestry, pre-law, pre-medicine and osteopathy, pre-mortuary science, pre-pharmacy and pre-social work. Professional curriculums include applied science, medical technology and occupational therapy.

Specialties in undergraduate education programs include early and later elementary teaching, secondary teaching and teaching of art, business education, 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 inter-collegiate and intramural athletic facilities, the Loessell Field Laboratory and the Westview apartments for married students. The Kesge Environmental Center in Lapeer County is located on an additional 240 acres owned by the University.

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 for conference guests, students taking short-term courses and others during summer months.

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 1974 exceeded 6,200.

The University's Division of Field Services 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.

MAJOR BUILDINGS

Frederick Alexander Music Hall is adjacent to Pease Auditorium and houses faculty and practice studios, classrooms, a recital hall and large rehearsal halls.

Richard G. Boone Building houses the College of Education and a post office substation.

Wilbur P. Bowen Field House is one of the largest and most functional in the state. It houses a complete field house with an eight-lap-to-a-mile track, a basketball court and tennis, volleyball and badminton courts. The seating capacity is 5,500.

Walter O. Briggs Building houses administrative offices.

The Center of Educational Resources (University Library) opened in its present quarters in 1967. It has seating space for 1,800 and houses approximately a half-million books, periodicals, documents and microfilms. Books are generally available from open stacks.

R. Clyde Ford Hall provides office and classroom space for the educational television and foreign languages and literature departments.

Bertha M. Goodison Hall was renovated in 1971 to house the Counseling Center, Dean of Students, Student Government, Student Publications and the Women's Commission.

J. M. Hover Laboratory, completed in 1941, houses laboratories of the Department of Biology, also a greenhouse and plant laboratory.

Mark Jefferson Science Building, a classroom and laboratory facility opened in 1970, contains the Biology, Chemistry and Psychology departments.

Julia Ann King Hall was renovated in 1971 to house the Music Department, the head of the department, music practice rooms and faculty; the Nursing Education Department, the head of the department and the faculty. There are also offices for Occupational Therapy, Black Studies, Contemporary Issues and WEMU, the University radio station.

Charles McKenny Union offers dining and recreational facilities for students, faculty, staff and guests. It provides meeting and conference rooms, food catering facilities, a bookstore and a ballroom.

Frederic H. Pease Auditorium seats 1,700 and is the location of the Frederick Alexander Memorial Organ, a stage practice rooms, classrooms and faculty studios.

John D. Pierce Hall houses major administrative offices.

Pray-Harrold Classroom Building, seven stories in height, houses departments of Economics, English Language and Literature, History and Philosophy, Mathematics, Political Science, Sociology and the College of Business.

Daniel L. Quirk Jr. Dramatic Arts Building contains an instructional theater seating 381, radio facilities, an outdoor
rally from a strong program in the liberal arts and sciences, and when there is a need for such training.

5. 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 present 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 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 leave, 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.

Members of the Board of Regents are Richard N. Robb of Ypsilanti, chairman, Beth Wharton Milford, vice-chairperson, of Ypsilanti, Timothy J. Dyer of Wayne, Edward J. McCormick of Monroe, Carleton K. Rush of Romulus, Mildred Beaty Smith of Flint, George E. Stripp of Ypsilanti and John F. Ullrich of Dearborn.

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 the 1960s
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 and pre-professional programs. Graduate study is offered in art, biology, chemistry, English language and literature, foreign languages and literatures, geography and geology, history and philosophy, mathematics, music, physics and astronomy, psychology, speech and dramatic arts, accounting and finance, business education, general business, management, marketing, as well as in various areas of general and special education, health, physical education, recreation, home economics and industrial education.

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 18,000.

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, N.Y. 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 the 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 country 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 five in the United States.

Music studies were established at EMU in 1854.

The Department of Special Education, established shortly 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 the most modern therapeutic and instructional equipment.

Eastern had the first student union of any teacher's 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 1975. Approximately 85 percent of these students come from nine counties in Southeastern Michigan—nearly half of them from Wayne County. All areas of Michigan are represented in Eastern's student body, as are more than 40 other states, Washington, D.C., the Philippines and Puerto Rico. Nearly 45 countries are represented in Eastern's student body.

Although Eastern is 126 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 5,930 in 1962, 7,200 in 1963, 8,400 in 1964, 10,200 in 1965, 12,884 in 1966, 14,769 in 1967, 19,107 in 1972, and 18,574 in the fall of 1974.

Summer and Spring session enrollments have risen rapidly. More than 8,900 students enrolled for the 1974 spring session and more than 6,200 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 5-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 126 year history, 27,252 provisional certificates, 21,130 life certificates and 5,093 other certificates have been awarded, for a total of 53,475. 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."

However, in the 16 years in which Eastern Michigan has been a university, the development of other programs has been rapid. More than 60 percent of EMU's undergraduate students are in non-teaching curriculums. This is reflected in new degrees being granted.

A new and unique degree-program curriculum in criminal justice and criminology was added in the 1973-74 year. The program emphasizes professional education rather than technical training. It will prepare students for professional positions in a wide variety of criminal justice agencies. The curriculum and its constituent courses also have a wide appeal to students in other fields, particularly pre-law and public service.

A program offering a minor in journalism has also been added to the University's curriculum. The program gives basic training to teachers and those who expect to make journalism a career, and is also designed to offer students a general knowledge of the journalistic media, both print and electronic.

**A nursing education program was initiated during the 1973 fall semester.** The program 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.

Two new majors at EMU are in anthropology and area studies. The major in anthropology focuses on social and cultural anthropology through cross-cultural studies of primitive, peasant and complex societies. It includes regional courses and topical specialities. The new major should be especially beneficial for students seeking careers in teaching, government or community-oriented positions.

The area studies major was initially offered during the 1974-75 academic year. An interdisciplinary program in the
College of Arts and Sciences. It is intended to prepare students to understand the background and specific problems of at least one of the major cultural or geo-political areas of the modern world. Students considering careers outside the United States in government or private business should find the program especially valuable. Areas offered for study are Africa, Asia/Far East, Latin America, Middle East/North Africa and the Soviet Union.

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 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. The program is expected to attract both union leaders looking toward advancement and rank-and-file members seeking individual growth and advancement. In order to accommodate those who work full-time, most classes are offered at night as well as during the day.

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.

Other bachelor's degrees are in arts, science, art education, business education, business administration, music and music education. Master of arts, master of science, master of business administration, master of business education and specialist degrees are also offered.

Through its Division of Field Services, EMU offers classes at 17 centers in 14 counties in southeastern Michigan, an extension program begun in 1921.

The College of Business is one of the fastest-growing segments of the University, both in size and in stature. Virtually every department in every college can claim at least one major contribution to the advancement of learning.

**THE FUTURE**

Growth of Eastern Michigan University in the past decade has amazed alumni and friends who remember the quiet little "teacher's college in Ypsilanti."

Profound changes are taking place simultaneously at EMU - both the more obvious physical growth and the less obvious conversion from a teacher's college to a university with all the enlargement in scope this implies.

James H. Brickley assumed the presidency of the University in January, 1975, to serve as its sixteenth president. He has firmly stated that it is time for E.M.U. to move forward in the development of new programs, building upon its fine traditions of the past in planning for a promising future. He believes a university has as its primary responsibility an obligation to provide a learning and growing experience and that E.M.U.'s students should experience and develop a capacity for lifelong learning; more important than what they learn is the development of an ability to learn.
CRITERIA

Scholarship, character, special aptitude and general intelligence are considered in determining an applicant's qualifications for admission.

Permission to enroll at Eastern Michigan University is a privilege and carries with it certain responsibilities. The University reserves to itself, and the student concedes to it, the right to cancel enrollment and to require withdrawal whenever it becomes evident that the student is not conforming to the standards of scholarship and conduct established by the University.

INFORMATION TO STUDENTS, PRINCIPALS AND COUNSELORS

To derive the greatest benefits from college, high school students should take a liberal program of studies and should achieve an adequate level of scholarship in them. If they are planning a program of study in college which requires specific high school subjects as prerequisites, they should include these subjects in their preparation for college. They may be admitted to college without them, but they may not be fully admitted to their chosen curriculum. For example, if they are planning on an engineering program, they should take the prescribed high school mathematics to prepare them for that curriculum in college. In the event that students have not taken these prerequisites in high school, they must take them in college before they can proceed in their chosen college curriculum. This is costly in time and money because it may extend their stay at the University by a semester or longer.

In order to plan effectively, the students should study the curriculum of their choice, as listed in the University catalog, to determine the specific prerequisite courses they must take to be admitted to that curriculum. In addition, they should consult their principal or counselor about their program of study in relation to their curriculum in college and to his choice of vocation. By achieving an adequate level of scholarship in high school, they will be better prepared for university work. Good planning in high school will smooth the road to their ultimate goal.

It is not necessarily true that graduation from high school will assure university admission. Students may be admitted in any of the following ways:

1. Admission by Certificate: A graduate of an accredited high school, academy, or equivalent may be admitted upon the presentation of an acceptable written record. Applicants will be considered in terms of their probability of success; their total school record, results of standardized tests, and other information from the school will be used to estimate their qualifications for beginning studies at Eastern Michigan University.

2. Admission after Examination: Applicants who do not qualify for admission on their academic records are required to submit the results of their College Entrance Examination Board Scholastic Aptitude Test (SAT) or the American College Test (ACT) prior to registration.

3. Admission under the Michigan Association of Schools and Colleges Agreement: A graduate qualified under this agreement may be admitted without regard to any specific pattern of high school courses. The graduate will be held to the prevailing academic and/or testing requirements.

4. Admission by Advanced Standing: A student transferring from an accredited university, college or community college may be admitted upon presentation of an official transcript of credits showing honorable dismissal.

5. Admission as a Special Student: If a person 18 years of age or older wishes to study at this University as a special undergraduate student but is unable to furnish other credentials upon which his admission might be based, he may be admitted by the Admissions Office with the approval of the president. Before any special student can receive a degree or certificate from this University, he must have met the requirements for admission prescribed under one of the other admission procedures numbered 1-4 above.

6. Admission as a Guest: One who is regularly matriculated and is in good standing in another college or university may be admitted as a guest student. The student assumes full responsibility for determining whether or not the courses he takes at this University will apply in his program of study. A guest matriculant 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.

7. Admission as an Auditor: (See Auditing of Courses, page 18.)

TESTING REQUIREMENTS

All new students except transfer students who have successfully completed 25 or more academic hours of college level work are required to submit the results of their College Entrance Examination Board Scholastic Aptitude Test (SAT) or the American College Test (ACT) prior to registration.

Freshmen and transfers who have not completed the SAT or ACT may obtain application blanks from their local high schools. The University recommends that the SAT or ACT be completed in the senior year of high school and not later than December for winter applicants or January for fall applicants.

Additional information may be obtained by writing to the College Entrance Examination Board or the American College Testing Program.

STUDENTS WHOSE NATIVE LANGUAGE IS NOT ENGLISH

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.

FRESHMEN

Each applicant who has never attended a university, college, community college or any institution of higher education, should follow the procedures outlined below to make application for admission. The applicant should:

1. Secure an application from the Admissions Office or high school principal.
2. Complete the section of the application which is to be filled out by the applicant.

3. Give the application to the principal of the high school from which he graduated and request him to complete the application blank and forward it to the Admissions Office of Eastern Michigan University with a transcript of his high school record.

4. Provide the University with the results of his College Entrance Examination Board Scholastic Aptitude Test (SAT) or the American College Test (ACT).

If additional information is necessary, the applicant will be notified by the Admissions Office.

This application may be made any time after the completion of the sixth semester in high school, but at least one month before the academic year begins.

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 twelve 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.

Certain specified examinations taken through the College Level Examination Program are accepted for academic credit at Eastern Michigan University. Information concerning the subject areas in which credit by CLEP examination will be granted, the test score required and the amount of credit allowed may be obtained in the Office of the Vice-President for Academic Affairs.

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. Advance 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):

College of Arts and Sciences

<table>
<thead>
<tr>
<th>Test</th>
<th>Score</th>
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</thead>
<tbody>
<tr>
<td>English Composition (121)</td>
<td>50</td>
</tr>
<tr>
<td>English Literature (101, 102)</td>
<td>50</td>
</tr>
<tr>
<td>American History (223, 224)</td>
<td>50</td>
</tr>
<tr>
<td>Western Civilization (101, 102)</td>
<td>50</td>
</tr>
<tr>
<td>American Government (112)</td>
<td>50</td>
</tr>
<tr>
<td>General Psychology (101)</td>
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College of Business

<table>
<thead>
<tr>
<th>Test</th>
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<tbody>
<tr>
<td>Introductory Business Management (382)</td>
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</tr>
<tr>
<td>Introductory Accounting (240)</td>
<td>56</td>
</tr>
<tr>
<td>Introductory Business Law (303)</td>
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College of Education

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<tr>
<th>Test</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>Human Development (320)</td>
<td>50</td>
</tr>
<tr>
<td>Tests and Measurement (340)</td>
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</tbody>
</table>

READMISSION OF VETERANS

A veteran of the U.S. Armed Forces whose academic record prior to entry into the Armed Forces would not qualify him 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.
TRANSFER STUDENTS

Any individual who has attended a university, college, community college or an institution of higher education other than Eastern Michigan University should follow the procedures outlined below. The applicant should:

1. Secure an application from the Admissions Office of Eastern Michigan University.
2. Complete the section of the application which is to be filled out by the applicant.
3. Give the application to the institution last attended and request that the application be completed and returned with an official transcript of former work to the Admissions Office of Eastern Michigan University.
4. Provide the University with the results of his College Entrance Examination Board Scholastic Aptitude Test (SAT) or the American College Test (ACT) if the applicant has earned less than 25 semester hours.

If the applicant has attended a non-accredited college or institution of higher education, he will need to provide the Admissions Office with an official transcript of his high school record.

If the applicant has earned less than 12 semester hours in previous attendance at an accredited institution, he will need to provide the Admissions Office with an official transcript of his high school record.

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.

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 reenrollment in the Academic Records and Teacher Certification Office at least two months prior to the first day of classes. The applicant should:

1. Secure 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.

If the student has attended any institution of higher education since enrolled at Eastern Michigan University, he/she must secure a transcript of work done elsewhere and submit it to the Academic Records and Teacher Certification Office with an application for readmission.

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

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: November 1
- For Spring Session: March 1
- For Summer Session: Between April 10 and June 8

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 a college or university for at least two calendar years is computed as follows:

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

FEES SUBJECT TO REVISION

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

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 fees.

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 a semester. Credits or other statements of record will be withheld and the student will be ineligible for further registration at E.M.U. until all obligations have been fulfilled.

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.

A Student Government Fee of $1.00 is assessed for each of fall and winter semesters to each student registering.

TUITION SCHEDULE

UNDERGRADUATE

(Fall and Winter Semesters)

(See Graduate Catalog for Graduate Tuition Schedule)

MICHIGAN RESIDENT

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>Freshmen and Sophomores</th>
<th>Juniors and Seniors</th>
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<tbody>
<tr>
<td>1</td>
<td>$19.50</td>
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</tr>
<tr>
<td>2</td>
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<td>18</td>
<td>351.00</td>
<td>369.00</td>
</tr>
</tbody>
</table>

No additional charge for hours in excess of 18.

No additional charge for hours in excess of 18.

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

In determining tuition assessments, both activity and academic hours are counted.

AUDITING FEES

Tuition and registration rates for auditing courses are the same as for credit. See page 18 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.

PAYMENT OF TUITION

Tuition and other University fees are due and payable prior to the beginning of each semester or session. The exact due date is printed on the invoice from Student Accounting. 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.

For those students who prefer to make installment payments, the University provides an optional installment payment plan for the fall and winter semesters. The installment payment plan applies only to tuition and room and board. It consists of a minimum initial payment of 40 percent of the room and board and tuition assessments for the semester and two additional installments, each consisting of a minimum of 30 percent of the assessments for the semester. Students who register after the initial invoice date for each semester are required to pay 40 percent of assessed tuition, room and board, and any miscellaneous fees at the time of registration.
An installment payment service fee of $3.00 is collected with each installment payment.

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

**STUDENT ACCOUNTS**

Tuition, room and board and other assessments are recorded to an account established for each student. A statement is provided each student prior to the initial payment due date and prior to each subsequent installment. The due date of each payment is indicated on the statement. For students who register after the issuance of the initial account statement, payment of at least 40 percent of the tuition assessment is required at the time of registration.

Students becoming delinquent in the payment of their accounts subject themselves to cancellation of their enrollment.

A late payment fee of $6.00 is assessed if the second payment is not received by the due date. Being late with the final payment makes the student ineligible for further registration, release of transcripts, or other University services.

If a student’s account is past due for a current semester, enrollment, University housing, and other University services 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.

**ACCOUNT ADJUSTMENTS**

Withdraw from the University:

1. A credit adjustment of 100 percent of the tuition assessment for the fall and winter semesters will be made to those students who cancel their registration or withdraw from the University prior to the seventh (7th) calendar day after the first 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 60 percent of the tuition assessment for the fall and winter semesters will be made to those students who withdraw from the University on or after the seventh (7th) calendar day, but before the 22nd calendar day after the first day of classes. For the spring and summer sessions, a 60 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 further credit adjustments will be made.

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 seventh (7th) calendar day after the first 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 60 percent of the difference in tuition assessment for the fall and winter semesters will be made to those students who decrease their academic load or after the seventh (7th) calendar day, but before the 22nd calendar day after the first day of classes. For the spring and summer sessions, a 60 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 further credit adjustments will be made.

**CANCELLATION OF REGISTRATION**

After students have registered, if they should decide before classes begin to not return to Eastern, they must sign a cancellation of registration form in the Registration Office prior to the seventh calendar day after the first day of classes. 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 Counseling Center. The date the request is made to the Counseling Center or the postmark date will be used in determining the amount of any assessment adjustment.

**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. 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 enrollment and will be reviewed at each subsequent registration. It shall be the responsibility of all students adjudged as non-residents, to apply for Michigan Residency if they believe they meet the requirements for such.

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

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 residence, to raise such questions in the Student Accounting Office in Briggs Hall.

**LATE REGISTRATION FEE**

A late registration fee of $5.00 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.

**PROGRAM ADJUSTMENT FEE**

A fee of $3.00 is assessed for student-initiated changes to their registration on or after the first day of classes each semester. Such changes consist of adding a course or changing sections.
APPLIED 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.
$60.00 per semester for one-hour lessons.
$30.00 per semester for half-hour lessons.
$90.00 per semester for one-hour lessons.
$45.00 per semester for half-hour lessons.

Other University students:

Students from public schools, the community and EMU staff and families:

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.

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.

VEHICLE REGISTRATION AND FEE

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.

Motor vehicles driven to or on the campus must be registered with the University, and the appropriate effective fee paid at the Safety Department during the first week of the semester.

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

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, Graphics, Ceramics, Jewelry, Sculpture, 3-D Design.

HPER
Snow Skiing, Trap & Skeet Shooting, Recreational Shooting, Bowling.

Business Education
Business Laboratory Fees.

Industrial Education
Flight Training Fees.

SCHEDULE OF ESTIMATED EXPENSES PER SEMESTER

<table>
<thead>
<tr>
<th>Fall Semester, 1975</th>
<th>Amount</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration Fee—All Students</td>
<td>$20.00</td>
<td>At Registration</td>
</tr>
<tr>
<td>Music Fee—Music Majors</td>
<td>$60.00</td>
<td>With tuition</td>
</tr>
<tr>
<td>Other Students</td>
<td>$30.00</td>
<td>With tuition</td>
</tr>
<tr>
<td>*Residence Hall Damage Deposit</td>
<td>$35.00</td>
<td>With first room application</td>
</tr>
<tr>
<td>Tuition (Resident Student, 15 hours)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshmen and Sophomores</td>
<td>$292.50</td>
<td>At registration, or in accordance with the installment payment plan.</td>
</tr>
<tr>
<td>Juniors and Seniors</td>
<td>$307.50</td>
<td></td>
</tr>
<tr>
<td>Room and Board</td>
<td>$690.00</td>
<td>Prior to move in, or in accordance with installment payment plan</td>
</tr>
<tr>
<td>($675.00 for 15 meals-per-week option)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Books, Supplies and Miscellaneous Expense</td>
<td>$125.00</td>
<td>After registration</td>
</tr>
</tbody>
</table>

Total Estimated Annual Minimum Costs:

Resident of Michigan ............ $2,555 to $2,585 per year
Out-of-state student ............. $3,545 to $3,635 per year
Vehicle registration fee—Applicable to all students who bring vehicles on campus.

* The $35.00 residence hall deposit is payable only with the first room application. For succeeding applications, only the charges against this deposit are necessary. See page 23 for an explanation of this deposit.

This estimate of expenses includes $300 for personal expenses.
STUDENT RESPONSIBILITIES AND INFORMATION

THE ACADEMIC YEAR

The academic year is divided into two semesters of fifteen weeks each, a spring session of seven and one-half weeks, a summer session which offers six and seven and one-half week courses as well as workshops of one to three weeks duration. All students may enroll at the beginning of any semester or session. The calendar is printed at the beginning 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.

The student is personally responsible for the satisfactory completion of the course work prescribed by his/her instructors. This means specifically that he/she is expected to attend classes regularly, and that he/she is responsible for the work assigned in class, the material covered in class and for participation in class activities (including discussion and listening) designed by the instructor as a part of the learning experience. However, mere physical attendance should not be a criterion for evaluation of the student's performance.

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 at Eastern on the term or quarter hour basis are converted to semester hours by multiplying by \( \frac{1}{2} \).

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 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 hours 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 registering for an academic load consisting of more hours than that recommended above, consultation with the student's advisor 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 Academic Advising.
2. Students on academic probation may not take more than the full time academic load.

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 provision:

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 his 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 will no longer 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 will no longer 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.

AUDITING OF COURSES

Students may audit courses subject to the approval of their advisor and the head of the department offering the course. The student's intention to audit a course rather than take it for credit must be established at the time of registration. Shifting from credit to "audit" status is not permitted after the last day that classes may be added or sections changed. No credit is awarded.

Others may be admitted as auditors under these additional restrictions:

1. By making application to the Admissions Office.
2. By having an official admission ticket approved by the dean of the college offering the course.

Tuition and fees for auditing courses are the same as for enrollment in courses for credit.

PASS-FAIL OPTION

A student may elect to take a course under the Pass/Fail Option for various reasons (e.g. if he/she wishes to experiment in an unfamiliar field without jeopardizing his/her 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 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 towards graduation.
4. The student shall indicate his intention to take a course under the Pass/Fail Option at the time of registration. This decision becomes binding at the period for adding classes or changing sections.

5. 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 towards graduation.
   b. The grade of E will be converted to U, and shall not count towards graduation.
   c. A course taken under this option shall not be used in any way in the computation of the student's grade point average.

Students should be fully aware of the possible implications of this option for acceptance into graduate schools and competition for financial aid there. It has been ascertained that most graduate schools will accept students who have elected to take courses on a Pass/Fail basis, but that if courses taken on this basis are sufficient in number on the transcript, the Graduate School Examination may be utilized to determine the student's acceptability. Graduate schools, in general, do tend to favor those applicants who have good letter grades on their transcripts.

CREDIT/NO CREDIT OPTION

Beginning with the fall semester 1974, a credit/no credit grading option can be utilized in courses for which the standard system of letter grades do 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 Time 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 towards graduation requirements, and there is no limit to the number of such courses which may be taken by an individual student.

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 freshman level 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 are usually 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 Advising Office 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 a student must have completed twenty semester hours of work in his 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 64.

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 58 a more extensive discussion of this program is provided.

CREDIT BY EXAMINATION

In addition to credit through 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 his 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 Office of the Vice-President for Academic Affairs, where further steps will be explained to him/her. Only currently enrolled students may apply. Credit will not be awarded for any course below the level of a course for which the student already has credit. A student who fails to pass such an examination will not be permitted to take another examination in the same course until four months will have elapsed, and until the student shall have presented evidence of sufficient further study of the subject to justify re-examination.

WITHDRAWALS 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 automatically accepted 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 16 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 academic advising 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 secured from the Academic Advising Office, or from the office of any academic department. This form, with the instructor's signature, is submitted to the Academic Advising Office for official processing.

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

The student should not stop attending class until he/she has received official notice that his/her 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 the student's 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 he/she enjoys 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.

WITHDRAWALS FROM THE UNIVERSITY

A student who finds it necessary to withdraw from the University initiates the procedure in the Counseling Center. Room 117, Goodison. The forms completed in this office are forwarded to the appropriate offices for processing the withdrawal. The current withdrawal from the University policy is stated below:

1. During the first ten weeks of instruction in each semester (adjusted for shorter academic sessions), students will be assigned the grade of "W" in each of their courses if they officially withdraw from the University.
2. Between the end of the tenth week of the semester and the day before the beginning of the final examination period, the assignment of grades will be based on the circumstances surrounding the necessity for withdrawal from the University.
3. A grade of "W" will be assigned under either of the following circumstances:
   a. The student's work at the time of the withdrawal request is A, B, C or D.
   b. Unexpected emergency circumstances, which have arisen after the 10th week of the semester, prevent the student from continuing in the University.
   c. If neither of the above circumstances prevail, a grade of "E" will be assigned.

On all withdrawals from the University after the tenth week of a semester, the Academic Advising Office will obtain from each instructor a report of the student's academic standing in the course at the time of the withdrawal request.

A student who has withdrawn from the University and desires to re-enroll in a subsequent semester or session shall follow the admission procedure for former students, as described on page 14.

See page 15 for tuition and fee information.

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, the student shall take the examination with his 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.

Similarly, students are to take their examinations with their regular classes at hours indicated on the schedule. If the student finds that he has three examinations scheduled on one day, he may request the instructor of the class having the first examination of the day to arrange for him to take the examination at another time. If he finds that he has four examinations scheduled for one day, he may request the instructors of the first two examinations to make arrangements so that he has to take no more than two in one day. He 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, the student 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 value in points are as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Significance</th>
<th>Grade Points per semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Exceptionally high order</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>Distinctly above the average</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>Average</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>Below average</td>
<td>1</td>
</tr>
<tr>
<td>E</td>
<td>Unsatisfactory (denoting failure)</td>
<td>0</td>
</tr>
<tr>
<td>CR</td>
<td>Passing grade in Credit/No Credit courses</td>
<td>0</td>
</tr>
<tr>
<td>NC</td>
<td>Failing grade in Credit/No Credit courses</td>
<td>0</td>
</tr>
<tr>
<td>S</td>
<td>Passing grade in Pass/Fail elections and credit for certification in student teaching courses</td>
<td>0</td>
</tr>
<tr>
<td>P</td>
<td>Passing grade in student teaching but not at level sufficient for certification</td>
<td>0</td>
</tr>
<tr>
<td>U</td>
<td>Failing grade in Pass/Fail and in student teaching elections</td>
<td>0</td>
</tr>
</tbody>
</table>

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

An "I" is 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. It is never applied to poor work or to non-attendance of class by the student. It implies that the student has informed the instructor of the reason for the requested incomplete. An "I" must be removed by completing the required work before the end of the first month of the next semes-
for the student is enrolled in this University; otherwise, the course will be recorded with a grade of “E.” In exceptional cases (e.g., when the next period of enrollment is two or more semesters after the receipt of the “I”) or the reasons for lack of completion of the work originally were such that the instructor recommends the course be repeated) the student may apply at the Office of the Vice-President for Academic Affairs to re-enroll in the course under this provision. Upon successful completion of the course, a “W” will be recorded as the previous grade.

The grade of “W” will be assigned only when an official withdrawal has been completed except as indicated in the preceding sentence. 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 “F” have been received can be earned only by repeating the course.

Any attempt to change an individual grade must be initiated no later than the end of the eighth week of the next regular semester (fall or winter) following the semester or session in which the grade was given. For instructor-requested changes, this means that the appropriate form has been submitted to the department head. For student appeals, it means that the instructor has refused to make a change, and the issue has been formally turned over to the departmental grievance board.

An extension beyond this limitation may be permitted only by the dean of the college in which the course was taken. Such extensions will be granted only on verifiable evidence of exigent 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.

**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.

**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.

**ACADEMIC PROBATION**

An undergraduate student is placed on academic probation when his/her 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 whether or not a student states that he/she has received official notification of such probation from the University.

A student's probationary status results from his/her academic record for the semester he/she has just completed, viewed in relation to his/her 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 him/her aware that he/she is not taking satisfactory progress toward completing his/her degree requirements. He/she should also realize that he/she must take steps, such as seeking additional help and advice, to ensure he/she can improve the quality of his/her academic performance so that he/she can continue his/her college career.

While on academic probation, a student must earn a grade point average of at least 2.00 (a “C” average) in each succeeding period of his/her enrollment (including the spring and the summer session) until probation is removed. 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 thirty days of a semester—and preferably within the first week of a semester—the student on academic probation is required to have a conference with his assigned academic adviser to review the student’s program of classes and his/her 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 Advising Office, 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 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: 101 Introduction to Education, 100 Introduction to University Study, 101 Early Childhood Education, 241 Introduction to Speech Correction and 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**

An undergraduate student is academically dismissed from the University when his cumulative grade-point deficit is excessive, or when he fails 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.

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

A student not on academic probation whose cumulative grade point deficit at the end of any enrollment period is 13 or more will be academically dismissed. Thus, even though a student has not previously been on academic probation, it is possible for him 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 for which he is enrolled, 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,” will be retained only at the discretion of the Academic Standards Committee.
Readmission

A student is academically dismissed 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; normally 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. The student will be required to support his/her eligibility for readmission through:

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

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

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

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

To apply for readmission a student must: Obtain a petition for readmission form in the Academic Advising Office, 229 Pierce Hall. Complete the form and return it to the Office of Academic Advising well in advance of the beginning of the semester for which readmission is desired, but in a 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 University, transcripts 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 Advising Office 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 a 2.00 (C average) or readmission will be cancelled.

A student who has been discharged from active military duty must include a copy of his separation record (DD Form 214) with the petition for readmission. If the student applies for readmission prior to his discharge, he may be readmitted conditionally pending receipt of his separation record.

CLASSIFICATION

For purposes of figuring class levels, the following hour classifications are used.

<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>

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 Advising Office, located in 229 Pierce Hall, provides assistance to students in planning or changing courses for a semester or in selecting or changing a major or minor. It provides authoritative interpretations of academic policies and procedures and is particularly helpful to students planning programs that are out of the ordinary or need special planning for career purposes. This office also counsels students who may be having difficulty with a class, helping them if changing or dropping classes becomes necessary.

2. The Counseling Center is staffed with professional counselors with whom students can talk in confidence about academic, emotional or social problems. It is located at 117 Goodison Hall.

3. The Reading Development and Study Center provides assistance to the student who wishes help in the diagnosing of problems relating to reading and study habits. It is located in 117 Goodison Hall.

4. The Writing Clinic, supervised by the English Department in 603F-Pray-Harold, advises and assists any student who needs to develop writing skills.

5. A Learning Resources Center, located in room 102 University Library, provides tutorial help for students with academic problems involving understanding of assignments, and assists in the location of study materials.

6. A Library Orientation Office provides instruction in the use of library resources, and publishes instructional sheets on various subjects to help students to learn how to use the library materials. Specialized bibliographies on subjects of interest are also prepared here. It is located in room 217 University Library.

7. Tutoring. Individual departments have programs which are designed to assist students having difficulty with subject matter. Tutoring is provided for both groups and individuals.

8. Residence Halls are staffed with counselors who help students with study problems. Resident unit administrators (RUA) will direct student to the adviser.

9. Guidance and Counseling Tutorial Program. The Department of Guidance and Counseling in the College of Education provides individual and group counseling to any student at Eastern Michigan University. This service is particularly helpful to students who are seeking information or who are attempting to make decisions regarding personal-social, educational and vocational goals. It is located in 13 Boone Hall.

10. The Cooperative Career Planning Program is designed to help students in the determination of their career goals. It sponsors programs to emphasize developing career opportunities and to provide complete career or occupational information. Through an office at 321 Goodison Hall, several sources of information are coordinated to provide easily accessible information to help students to become aware of career opportunities.

PLACEMENT

Through its Placement Center, the University offers to its graduates and alumni active aid in securing positions after graduation and in obtaining professional advancement. Complete records are kept of graduates and are added to as professional experience is gained and as additional advanced academic preparation is taken. The Placement Center desires to serve both the graduates and the hiring officials by bringing to each job offered the best qualified person and by providing jobs that fit the qualifications of the individual graduate. The Placement Center serves as the channel through which much information about the performance of Eastern Michigan University graduates is brought back into the instructional program of the University. It is recommended that each graduate register at the Placement Center and develop a placement folder.

STUDENT AND SUMMER EMPLOYMENT

Eastern Michigan University offers a centralized placement service for students interested in employment opportunities.
This service is available through the Student Employment Office at the Placement Center.

Thousands of students each year obtain part-time positions through Student Employment while attending the University. 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. The Student Employment Office of the Placement Center attempts to fit the positions to the student's interests, skills, class schedule, etc., as much as possible.

Summer employment opportunities have traditionally been with camps and resorts, but more and more businesses and industries, governmental agencies, etc., are using college students during their summer vacation periods. Summer employment opportunities start to be listed about Christmas time. Many employers visit the campus to interview students for summer positions.

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.

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, and a courtesy car to transport ill or injured students in the evenings or on weekends when the Health Center is open.

The Health Center is open weekdays from 8:00 a.m. to 12:00 midnight and on Saturdays and Sundays from 9:00 a.m. to 5:30 p.m. Physicians are on duty weekdays from 8:00 a.m. to 5:00 p.m. and on Saturdays and Sundays from 1:00 p.m. to 4:00 p.m. During the fall and winter terms, physicians are also on duty weekday evenings from 6:00 p.m. to 10:00 p.m.

There is no charge for daytime clinic visits on weekdays. However, there is a $5.00 charge to see the doctor on duty in the evening or on weekends. Specialty clinics, which are staffed by physician specialists, are held at the Health Center on weekday evenings for special problems in gynecology, orthopedics, dermatology and ear, nose and throat and there is a $7.00 charge per visit to these clinics.

The student is responsible for payment of all center charges including those for medications, laboratory tests, x-rays, allergy injections, flu shots or other immunizations, TB tests, specialty clinic visits, evening and weekend physician services and any 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.

The Health Center staff physicians work closely with the University Counseling Center in referring students with emotional or psychiatric problems for counseling and treatment. Arrangements for psychiatric consultations are made through the Counseling Center.

LOANS, SCHOLARSHIPS AND GRANTS

Eastern Michigan University attempts to assist, to the limit of available funds, every capable student who desires an education.

Eastern Michigan University is a participant in the National Direct Student Loan Program, the College Work Study Program, the State of Michigan Guaranteed Loan Program, the Educational Opportunity Grant Program and the Law Enforcement Education Program. For information concerning loans, scholarships and grants-in-aid, students should consult with the dean of admissions and financial aids.

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, course-load, age and unique individual circumstances are all considered in review of exemption requests.) To qualify for admission and continued enrollment each student at the freshman and sophomore levels must either submit an application for residence halls, or submit an application for exemption and receive approval to live off campus.

University Housing welcomes all students. Admission to the University, however, does not guarantee the availability of University Housing. Therefore, students are encouraged to make early application. All students are responsible for abiding by local, state and federal laws affecting all citizens of the community. The University Student Conduct Code is applicable to students residing off-campus as well as on-campus.

Residence Hall Program

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

Significant student development resources are numerous for the Residence 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 counselors, 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 by 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).

Residence hall fees for room and board (for the 1974-75 academic year) were $1,250 for 20 meals per week; the 15 meal option was $1,220; the 10 meal option was $1,190; and a non-meal option (open to students with conflicts with all other meal options, by permission only) was $575. It is anticipated that rates may increase for the 1975-76 academic year. 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 1974-75) was available for an additional $257 per academic year. Room and board rates vary from year to year, and the University reserves the right to revise rates and services as need may dictate.

The University reserves all rights regarding the assignment and reassignment of rooms or the termination of occupancy in accordance with University policies, regulations and procedures.

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

University Food Service

The Eastern Michigan University Food Service program is designed to provide a wide variety of nourishing meals in pleasant and sanitary surroundings. The Food Service Department concurrently tries to maximize the accommodation of individual needs through optional meal plans, second service programs, 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 the Brown-Munson complex are as follows:

- 180 two person, one bedroom apartments
- 20 one person efficiency apartments
- 4 six person, two bedroom apartments

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

Leases are for periods of 8, 10 or 12 months. 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 $35.00 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 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 $35.00 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 does maintain a listing of firms and individuals who have notified the Office that they offer rooms, apartments, or houses in the Ypsilanti area.

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

Best, Phelps-Sellers and Walton-Putnam Halls

Jones Hall

Downing, Buell, and Goddard Halls

Residence Hall Towers
Hill, Hoyt, and Pittman Halls
DEGREES, CERTIFICATES AND
REQUIREMENTS FOR GRADUATION

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 "General Curricular Requirements."

Bachelor of Arts

The student who qualifies for a Bachelor of Arts 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 35.

Bachelor of Art Education

The requirements of the curriculum leading to the Bachelor of Art Education degree may be found on page 150.

Bachelor of Business Education

The requirements of the curriculum leading to the Bachelor of Business Education degree may be found on page 151.

Bachelor of Business Administration

The requirements of the curriculum leading to the Bachelor of Business Administration degree may be found on page 123.

Bachelor of Music—Performance

The requirements of the curriculum leading to the Bachelor of Music—Performance degree may be found on page 36.

Bachelor of Music Education

The requirements for the curriculum leading to the degree of Bachelor of Music Education may be found on pages 155 to 156.

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 curriculum 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.

VOCA TIONAL CERTIFICATES

State Secondary Provisional Vocational Certificate in Home Economics

Qualifies the holder to teach 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. Permanent or continuing teaching certificates will be granted only to individuals who are citizens of the United States or who have declared their intention of becoming citizens.

PROCEDURE FOR PERMANENT AND CONTINUING CERTIFICATION

The holder of an elementary provisional or a secondary provisional certificate, issued prior to July 1, 1970, who has fully met the requirements of teaching successfully for at least three years in the grades covered by the provisional certificate and who has earned at least 10 semester hours of acceptable college credit may be issued a permanent certifi-
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 Dietetic Association.

Licensure in Nursing
Graduates of the nursing program receive a Bachelor of Science degree and are eligible to qualify as a registered nurse 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.

REQUIREMENTS FOR GRADUATION

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

In the event the student does not complete the degree requirements within seven years of the date of his original registration at Eastern Michigan University, he may be required to have his credits re-evaluated by the dean of academic records and teacher certification in keeping with catalog requirements in force during the year of his graduation.

Application for Graduation

A formal application for graduation must be filed in the Academic Records and Teacher Certification Office during the first week of his 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.

Financial Obligations

Students are eligible for graduation and/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.
GENERAL CURRICULAR REQUIREMENTS

Eastern Michigan University offers its undergraduate students thirty-four different curriculums leading to professional careers. Twelve of these are teaching curriculums resulting in a bachelor's degree and a teacher's certificate. Other four-year programs lead to the Bachelor of Arts degree, the Bachelor of Science degree, the Bachelor of Music degree or the Bachelor of Business Administration degree. Also available are eight pre-professional curriculums most of which are not in themselves four-year degree programs. There is also a two-year curriculum for industrial technicians and a flexible program of less than four years in business.

For all four-year curriculums, the following general curricular requirements pertain:

TOTAL HOUR AND GROUP REQUIREMENTS

Each curriculum leading to the bachelor's degree requires a minimum of 124 semester hours of academic credit.

Group I—Language and Literature
Ancient language and literature; modern language and literature; English language and literature; and most courses as indicated in speech and 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 (includes methods courses and student teaching.)

Group V—Fine Arts
Art; music.

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

Group VI—Practical Arts
Business administration; business education; home economics; industrial education; military science; and courses in library science as indicated.
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 each student who graduates from Eastern Michigan University some breadth and awareness of fields other than his 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:

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

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

1. In general, students must complete 121 English 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. (English 120 does 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. So many 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 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", the English Department, except that they may not apply English 120, 308, nor any "literature" courses. They may select any course taught in a foreign language, 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:

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, for students exempt from Biology 105) and Biology 224; Chemistry 105, 115 together with 116, 119, 120, and 131; Geography 108; Physics 100 (students elementary education only). 110, 115, and for students with proper mathematics background, 221 or 223; 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 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 sociological-cultural anthropology or economics or geography (Group III).

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

2. Students may select any 100-level course in the History Department, presently History 101, 102, 103, 105, or 123.

Translated into specific areas, Basic Studies include:

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

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

1. In general, students must complete 121 English 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. (English 120 does 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. So many 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 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", the English Department, except that they may not apply English 120, 308, nor any "literature" courses. They may select any course taught in a foreign language, 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:

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, for students exempt from Biology 105) and Biology 224; Chemistry 105, 115 together with 116, 119, 120, and 131; Geography 108; Physics 100 (students elementary education only). 110, 115, and for students with proper mathematics background, 221 or 223; 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 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 sociological-cultural anthropology or economics or geography (Group III).

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

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 in the same discipline usually 110 World Regions and any other social science (Group III) geography course for which the prerequisite is met. (Neither geography or geology Group II courses nor Geography 347 or 348 may be applied.) In the humanities-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:

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 with written departmental permission be elected for this requirement, but 207 Children's Literature may not be applied.

In the Foreign Languages Department, students may apply two foreign language literature courses chosen from 221, 222, 341, and 342, or any other 300 or 400-level advanced literature courses. Any course taught in the philosophy section of the History and Philosophy Department may apply, although only 180 Introduction to Logic and 200 "Types of Philosophy" 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.
2. Any course taught in the philosophy section of the History and Philosophy Department may apply, although only 180 Introduction to Logic and 200 "Types of Philosophy" 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 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 courses 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.

The General Humanities Program

This program provides University students with an opportunity to fulfill 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_. The four-year program will satisfy 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 who complete Humanities 101 but do not complete the full 24 hours of the Humanities Program will receive Basic Studies credit equivalent to the number of hours of humanities courses taken. The Office of Academic Advising will determine which courses the student will take to satisfy the remaining Basic Studies requirements.

Any nine hours of foreign language courses will satisfy nine hours of requirements in the General Humanities Program.

REQUIREMENT IN GOVERNMENT

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

REQUIREMENTS IN MAJORS AND MINORS

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

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

2. A student who completes the specialized curricula for teachers of art, teachers of business education, teachers of industrial education and teachers of music, or the professional curricula in applied science, business administration, home economics in business, 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 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 a part of that major or minor.

PHYSICAL EDUCATION ACTIVITY AND MILITARY SCIENCE

All students shall present for graduation four semester hours (eight activity 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. Because credit in activity courses is computed in activity hours rather than semester hours, it should be understood that two activity hours are equal to one semester hour.

Minimum requirement for the bachelor's degree is 124 semester hours including military science credit for physical education.

This requirement may be met in the following ways:

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

2. The two semester hours of credit received for Military Science 100 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 8 semester hours and may count a maximum of 2 of them toward the physical education requirement. By completing the Advance 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 three years junior ROTC will be given credit for the first year 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 Advance Program).

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. No student will be graduated from any curriculum if his 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 honor point credit and may not be used in the figuring of scholastic indices.

COURSE LEVEL

At least two-thirds of the work beyond the second year must be in courses not open to first year students.

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.
CENTER OF EDUCATIONAL RESOURCES

The University Library 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 are organized into four units. The resources of the Utilization and Distribution Unit, housed in the first floor of the University Library building and consisting of some 1,000 films, 5,000 filmstrips, 6,500 recordings, 300 audio tapes, and over 4,000 hours of video tape recordings, are available for individual or group retrieval. Projection, audio, and television equipment is available for faculty and student use.

The Production Unit, which includes extensive television recording as well as graphic and film production facilities, and the Engineering Unit, which maintains and services all media equipment of the University and provides advice and assistance to departments and individuals on the design of media systems and installations, are located in Ford Hall. The Instructional Development Unit, housed in the University Library, offers assistance to departments and to individual faculty on the use of media.

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 a large Instructional Materials Center in conjunction with the education and psychology division, a map library in the science and technology division, University archives and special collections in the social science division and sound archives. 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 over 400,000 volumes, including documents, and 200,000 microforms.

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

DEAN: Donald F. Drummond

DEPARTMENTS

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
LIBERAL ARTS AND PROFESSIONAL CURRICULUMS

The University offers liberal arts and professional curriculums, some four-year and some two-year, 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).
6. Arts Management.
7. Criminal Justice and Criminology.
8. Pre-Dentistry.
9. Pre-Engineering.
10. Pre-Forestry.
11. Pre-Law.
12. Pre-Medicine and Osteopathy.
13. Pre-Mortuary Science.
14. Pre-Pharmacy.
15. Pre-Social Work.

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 the student the most flexibility in the use of his electives and in his selection of a major and a minor.

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

When a student says that he wants a "liberal arts" degree, he usually refers to a Bachelor of Science degree program. In addition, he wishes to complete at least a year of college credits in a foreign language and to elect 75 hours (and usually also his major and minor) in groups I, II and III, he 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. In addition to the curriculums listed above under the College of Arts and Sciences, there are other curriculums described later in the catalog. The Business curriculums begin on page 122, the Education curriculums begin on page 142, the Human Services curriculums begin on page 180, and the curriculums offered in the Applied Sciences departments begin on page 36.

CURRICULUM FOR THE BACHELOR OF SCIENCE DEGREE

Adviser Chairman, Edgar L. Jones, Jr.

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 29. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

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

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

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Studies, minimum</td>
</tr>
<tr>
<td>Major, minimum</td>
</tr>
<tr>
<td>Minor, minimum</td>
</tr>
<tr>
<td>Group VII</td>
</tr>
<tr>
<td>Physical Education and Health</td>
</tr>
<tr>
<td>Physical education activity courses (eight activity hours)</td>
</tr>
<tr>
<td>Note: Two semester hours of military science may be applied toward this requirement.</td>
</tr>
<tr>
<td>Free electives</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

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 his proposed program.
3. The way in which the proposed program will operate to
fulfill his educational and life objectives.

4. A detailed listing of courses which he wishes to elect. See the director of academic advising for aid in developing such a program.

CURRICULUM FOR THE
BACHELOR OF ARTS DEGREE

Adviser Chairman, Edgar L. Jones, Jr.

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 29. 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 a minimum of 75 semester hours elected from Groups I, II, III, and at least one year of credit in one foreign language. The students will also complete, as a minimum, a major subject of at least 30 semester hours and one minor subject of at least 20 semester hours.

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

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

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Studies, minimum</td>
</tr>
<tr>
<td>(Degree requires completion of one year college credit in one foreign language)</td>
</tr>
<tr>
<td>Major, minimum</td>
</tr>
<tr>
<td>Minor, minimum</td>
</tr>
<tr>
<td>Group VII Physical Education and Health</td>
</tr>
<tr>
<td>Physical education activity courses (eight activity hours)</td>
</tr>
<tr>
<td>Note: Two semester hours of military science may be applied toward this requirement.</td>
</tr>
<tr>
<td>Free electives</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

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 29. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

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

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

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

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group I Language</td>
</tr>
<tr>
<td>One course in English composition or, if eligible, a foreign language course.</td>
</tr>
<tr>
<td>One course in Fundamentals of Speech.</td>
</tr>
<tr>
<td>One elective course in English literature, in a foreign language, in speech, or in library science (Group I).</td>
</tr>
<tr>
<td>Group II Science and Mathematics</td>
</tr>
<tr>
<td>(No more than two courses in one department.)</td>
</tr>
<tr>
<td>One laboratory science course.</td>
</tr>
<tr>
<td>A second laboratory science course or a course in mathematics.</td>
</tr>
<tr>
<td>One elective course in Group II.</td>
</tr>
<tr>
<td>Group III Social Sciences</td>
</tr>
<tr>
<td>One course in American government from:</td>
</tr>
<tr>
<td>112 American Government or 202 State and Local Government</td>
</tr>
<tr>
<td>One course in history.</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>
</tr>
<tr>
<td>Humanities</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 (Group V courses below automatically meet this requirement).</td>
</tr>
<tr>
<td>Group V Fine Arts</td>
</tr>
<tr>
<td>107 Art Survey I</td>
</tr>
<tr>
<td>108 Art Survey II</td>
</tr>
<tr>
<td>122 Two Dimensional Design</td>
</tr>
<tr>
<td>123 Drawing I</td>
</tr>
<tr>
<td>124 Drawing II</td>
</tr>
<tr>
<td>210 Life Drawing</td>
</tr>
<tr>
<td>215 History of 19th Century Art</td>
</tr>
<tr>
<td>216 History of Contemporary Art</td>
</tr>
<tr>
<td>231 Three Dimensional Design</td>
</tr>
<tr>
<td>Select a sequence of four courses in a major area</td>
</tr>
<tr>
<td>Select three courses from the areas outside the above major area. These may be in sequence or selected individually.</td>
</tr>
<tr>
<td>Electives</td>
</tr>
<tr>
<td>Group VII Physical Education and Health</td>
</tr>
<tr>
<td>Physical education activity courses (eight activity hours)</td>
</tr>
<tr>
<td>Note: Two semester hours of military science may be applied toward this requirement.</td>
</tr>
<tr>
<td>*Free electives (no more than six hours in art)</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

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

*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.
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 29. 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 indi-
cated, 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 stu-
dents on this curriculum must complete all other courses
specified below.

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 grad-
uation.

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
(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 Depart-
ment, 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 (eight ac-
tivity hours)

Note: Two semester hours of military science
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.

APPLIED SCIENCE CURRICULUM
BACHELOR OF ARTS OR
BACHELOR OF SCIENCE DEGREE

Adviser Chairman, James Barnes

This program, designed for students who plan to enter occu-
pations in which a substantial background in mathematics
and science is required, calls for concentration of 16-18 semes-
ter hours in two of three departments—chemistry, mathemat-
ics 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 29. 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 indi-
cated, 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 stu-
dents on this curriculum must complete all other courses
specified below in Groups II and VI.

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 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 ............ 68-71
Required Courses .............................. 51

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

Mathematics
120 Calculus with Analytic Geometry I ...... 4
121 Calculus with Analytic Geometry II ...... 4
122 Elementary Linear Algebra ............... 2
220 Calculus with Analytic Geometry III ..... 3
221 Calculus with Analytic Geometry IV ..... 3

*The applied music credit is recommended at four semester
hours for eight semesters with both a junior and senior rec-
tital required.

**If student takes two-course sequence in Conducting, only
four hours of elective are available.
### Arts Management Curriculum

**BACHELOR OF SCIENCE DEGREE**

Adviser Chairman, Kenneth Stevens

All levels of the University have approved offering the curriculum in arts management, and all courses are currently available. Action on the state level is expected soon.

*Students wishing to become professional chemists, please see Professional Curriculum in Chemistry, page.*

**Electives must have approval of this department. Electives in physics must come from physics courses numbered 300-400.*

---

### Physics

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>223 Mechanics, Sound and Heat</td>
<td>5</td>
</tr>
<tr>
<td>224 Electricity and Light</td>
<td>5</td>
</tr>
<tr>
<td>270 Introduction to Modern Physics</td>
<td>3</td>
</tr>
<tr>
<td>272 Modern Physics Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>456 Electronics for Scientists</td>
<td>4</td>
</tr>
</tbody>
</table>

### Additional courses are required for a major.

Select one group

#### Chemistry

- 371 Organic Chemistry
- 372 Organic Chemistry
- 373 Organic Chemistry Laboratory
- 461 Physical Chemistry
- 462 Physicochemical Measurements

#### Electives

- 7

### Mathematics

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>320 Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>425 Mathematics for the Scientist I</td>
<td>3</td>
</tr>
<tr>
<td>426 Mathematics for the Scientist II</td>
<td>3</td>
</tr>
</tbody>
</table>

### Physics

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>430 Intermediate Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>452 Electrical Measurements</td>
<td>4</td>
</tr>
<tr>
<td>471 Nuclear Physics</td>
<td>4</td>
</tr>
</tbody>
</table>

One of the following laboratory courses:

- 432 Mechanics Laboratory
- 442 Optics Laboratory
- Electives

### Group III Social Sciences

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course in American government from:</td>
<td>9-12</td>
</tr>
<tr>
<td>American government or</td>
<td>1</td>
</tr>
<tr>
<td>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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit 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>11-12</td>
</tr>
<tr>
<td>One course in philosophy or religion.</td>
<td>1</td>
</tr>
<tr>
<td>One course in arts, music, or dramatic arts.</td>
<td>6</td>
</tr>
</tbody>
</table>

### Group VI Practical Arts

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>122 Technical Drawing</td>
<td>3</td>
</tr>
<tr>
<td>223 Descriptive Geometry</td>
<td>3</td>
</tr>
</tbody>
</table>

### Group VII Physical Education and Health

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical education activity courses (eight activity hours)</td>
<td>4</td>
</tr>
</tbody>
</table>

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

### Free electives

- 18-10

### Total

- 124

---

The curriculum equips students to make important contributions to their community, state and nation, as it provides them with training that qualifies them for careers in an arts management field and prepares them for further study at any of the eleven graduate programs offered throughout the nation.

This program will be 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 he must also maintain a high degree of sensitivity to the aesthetics and the operational requirements of sometimes one, but far more often, a multiplicity of art forms.

The proposed 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 obviously 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:**

- 23-27 semester hours
- and (3) activity hours

**Art**

- 8-9

**Dance**

- 2-3

- and (3) activity hours

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

<table>
<thead>
<tr>
<th>Group II Science and Mathematics</th>
<th>10-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>(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.</td>
<td></td>
</tr>
<tr>
<td>Group III Social Sciences</td>
<td>9-12</td>
</tr>
<tr>
<td>One course in American government selected from: 112 American Government or 202 State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td>One course in history. **A second course in history or a two-semester sequence in sociology-cultural anthropology or economics or geography (Group III)</td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td>9</td>
</tr>
<tr>
<td>Two courses in literature in the English Department, two intermediate foreign language literature 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 major below).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group V Fine Arts</th>
<th>12-14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art</td>
<td></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>*Electives in Art</td>
<td>2-3</td>
</tr>
<tr>
<td>Music</td>
<td></td>
</tr>
<tr>
<td>*107 Music Appreciation</td>
<td>2</td>
</tr>
<tr>
<td>*Electives in Music</td>
<td>2-3</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Group VII Physical Education and Health</th>
<th>6-7</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Electives in an academic dance course</td>
<td>2-3</td>
</tr>
<tr>
<td>*161 Beginning Modern Dance</td>
<td>(3)</td>
</tr>
<tr>
<td>Other physical education activity courses (five activity hours)</td>
<td>(5)</td>
</tr>
<tr>
<td>Note: Two semester hours of military science may be applied to the general activity requirement.</td>
<td></td>
</tr>
</tbody>
</table>

Free electives | 33-21 |
Total | 124

CRIMINAL JUSTICE AND CRIMINOLOGY CURRICULUM

Bachelor of Arts or Bachelor of Science Degree
Adviser Chairman, Edward Green

This program provides professional education in fields dealing with the administration of criminal justice at the level of the police, the courts and corrections. It will prepare students for careers in operations and research in public service and private agencies concerned with crime and delinquency.

The program consists of courses in criminology and criminal justice, cognate social and behavioral sciences and field experience placements under professional supervision or special training programs in cooperating agencies of criminal justice. It is an inter-disciplinary major consisting of 15 hours of core courses, 11 hours in social services, 9-10 hours in psychology and 21 hours in social sciences. Special programs can be tailored in consultation with the faculty adviser.

Courses in management and business organization appropriate to law enforcement administration are offered by 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, respectively.

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 29. 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.

The outline of the curriculum given below identifies the course requirements with an asterisk (*) and shows their distribution among the group requirements. These particular curriculum, major or minor requirements do specify both courses and the number of hours to be completed.

<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. One course in fundamentals of speech. 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>16-17</td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>*101 or 102 General Psychology</td>
<td>3-4</td>
</tr>
<tr>
<td>*207 Psychology of Adjustment</td>
<td>3</td>
</tr>
<tr>
<td>*360 Abnormal Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

*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.

Semester Hours
Pre-Dentistry Curriculum
Adviser Chairman, John M. Sullivan

Students electing this curriculum should be aware of the exact admission requirements of the dental schools to which they plan to apply. A compilation of the admission requirements of all dental schools in the United States is available at the adviser's office in the Chemistry Department.

It is possible for a student with a strong high school background to complete the dental school requirements after two years. However, the vast majority of students entering dental school have completed either three or four years of college, and over half have earned a bachelor's degree. Pre-dental students are therefore urged to follow a course pattern in line with the requirements for the bachelor's degree. Upon completion of the pre-dental requirements, students should change their curriculum to the degree program of their choice.

Students should take the Dental Aptitude Test one year before they plan to enter dental school. Information and application forms are available from their adviser.

The following is a typical program for a student with a normal high school background. However, there is some flexibility, and students need not necessarily take the courses in this sequence. Any student whose high school biology, chemistry or mathematics background was exceptionally strong should consult his adviser about the possibility of bypassing the first course in these areas.

First Year

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
</tr>
</tbody>
</table>

**First Semester**

- 121 English Composition
- 131 General Chemistry I
- 105 Biological Science
- 105 College Algebra
- Physical education activity (2) or military science

**Second Semester**

- 121 Fundamentals of Speech
- 132 General Chemistry II
- 107 Trigonometry (if not taken in high school)
- Physical education activity (2) or military science
- Electives

Second Year

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-16</td>
</tr>
</tbody>
</table>

**First Semester**

- 222 Zoology
- 371 Organic Chemistry
- Electives

**Second Semester**

- 372 Organic Chemistry
- 373 Organic Chemistry Laboratory
- Electives

Third Year

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-16</td>
</tr>
</tbody>
</table>

**First Semester**

- 324 Comparative Anatomy of Vertebrates
- 221 Mechanics, Sound and Heat
- Electives

**Second Semester**

- 222 Electricity and Light
- Electives

PRE-ENGINEERING CURRICULUM
Adviser Chairman, Alfred Roth

Courses common to most branches of engineering.

First Year

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
</tr>
</tbody>
</table>

**First Semester**

- 121 English Composition
- 120 Calculus with Analytic Geometry I
- 122 Technical Drawing
- 131 General Chemistry I
- Physical education activity (2) or military science

**Second Semester**

- 121 Calculus with Analytic Geometry II
- 122 Elementary Linear Algebra
- 223 Descriptive Geometry
- 223 Mechanics, Sound and Heat

Second Year

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
</tr>
</tbody>
</table>

**First Semester**

- 220 Calculus with Analytic Geometry III
- 224 Electricity and Light
- 230 Engineering Dynamics
- 201 Principles of Economics I
- Physical education activity (2)
Second Semester ............................................. 16
221 Calculus with Analytical Geometry IV .......... 3
229 Strength and Elasticity of Materials .......... 4
202 Principles of Mechanics II ............... 3
237 Introduction to Computer Programming and Numerical Methods .......... 3
241 Materials Science .................................. 3

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
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 (four activity hours) in physical education activity courses or receive a similar amount of credit using the military science options appearing on page 31. 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:


Chemical and Metallurgical Engineering: Make the following replacement in the first semester of the sophomore year: 231 Statics 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; 320 Mathematics, Differential Equations.

Industrial Engineering: 240 Business Accounting.


PRE-FORESTRY CURRICULUM

Advisor Chairman, Max E. Adler

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

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>**120 Calculus with Analytical Geometry I</td>
<td>4</td>
</tr>
<tr>
<td>119 Fundamentals of Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>121 English Composition</td>
<td>4</td>
</tr>
<tr>
<td>**105 Biological Science</td>
<td>1</td>
</tr>
<tr>
<td>Physical education activity (2) or military science</td>
<td>1</td>
</tr>
</tbody>
</table>

| Second Semester |

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 Fundamentals of Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>221 General Zoology</td>
<td>3</td>
</tr>
<tr>
<td>105 Introductory Sociology</td>
<td>1</td>
</tr>
<tr>
<td>Physical education activity (2) or military science</td>
<td>1</td>
</tr>
</tbody>
</table>

Second Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>221 Mechanics, Sound and Heat</td>
<td>4</td>
</tr>
<tr>
<td>201 Principles of Economics I</td>
<td>3</td>
</tr>
<tr>
<td>222 General Zoology</td>
<td>4</td>
</tr>
<tr>
<td>One course in history</td>
<td>3</td>
</tr>
<tr>
<td>121 Fundamentals of Speech</td>
<td>2</td>
</tr>
</tbody>
</table>

Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>222 Electricity and Light</td>
<td>4</td>
</tr>
<tr>
<td>202 Principles of Economics II</td>
<td>3</td>
</tr>
<tr>
<td>215 Journalism</td>
<td>3</td>
</tr>
<tr>
<td>302 Systematic Botany or 310 Plant Physiology</td>
<td>3</td>
</tr>
<tr>
<td>206 Surveying</td>
<td>3</td>
</tr>
</tbody>
</table>

The general requirement for admission with junior standing to a professional school is 60 semester hours credit. Some schools do not include credit for physical education activity or military science within that minimum and the student planning to enroll in such a school should increase his 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 student complete prerequisites for these courses early and take this into account when planning his financial affairs for his 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 E.M.U. and observing the requirements prescribed for that degree (including physical education activity hours requirements). A student electing to follow this plan should allow an extra year to complete his graduate work in the professional school, however.

*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.

*105 Biological Science is required as a prerequisite for 221 Botany and 222 Zoology unless the student is exempted by test. Freshmen entering the pre-forestry program should take the biology placement test during orientation week. If not exempted from 105 Biological Science, the student should take the course during his first semester on the campus and delay 221 General Botany until the following semester.

***Students may elect 106 Earth Science, 121 General Drawing or other electives.

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.
PRE-LAW CURRICULUM

Adviser Chairman, David Hortin

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, the student should consult the catalog of the law school in which he/she is 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 student's command and mastery of the use of language, develop his critical understanding of human values and institutions or stretch his capacity for independent, searching, creative thinking will be of value to him.

Competition for admission to all professional schools is intensifying. If a student contemplating law school is not achieving at least a 2.8 grade point average by his junior year, he is well-advised to plan a program that will also prepare him for an alternate vocational goal.

Almost all law schools require applicants to submit scores on the Law School Admission Test, usually taken during the fall semester of the senior year. The pre-law student can get application forms for the test and information about it by writing to Law School Admission Test, Educational Testing Service, Box 944, Princeton, New Jersey 08640, or they are available from the pre-law adviser. The test is 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 three weeks 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 35. Entering freshmen who have not made tentative choices at 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.

PRE-MEDICINE AND OSTEOPATHY CURRICULUM

Adviser Chairman, Edith M. Hurst

The medical and osteopathy schools establish their own requirements for admission. The course requirements are similar, but differ enough so that the student should consult the catalogs of the various schools in which he or she is 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.

An important admission requirement for all medical schools, the Medical College Admission Test, is given in May and October in various centers throughout the nation. This is usually taken during the junior year.

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 a student plans to apply for admission to a medical school without completing the degree, he/she should plan his/her schedule to include the following general requirements:

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>121 English Composition</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Electives in English language or literature</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>105 Biological Science</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>222 General Zoology</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>301 Genetics and/or 323 Animal Embryology</td>
<td>3-6</td>
</tr>
<tr>
<td></td>
<td>131, 132 General Chemistry</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>371, 372, 373 Organic Chemistry</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>221 Mechanics, Sound and Heat and</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>222 Electricity and Light</td>
<td>8</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, though this is not mandatory. Curriculum patterns detailing these major-minor sequences are available from the advisers or from the Office for Academic Advising. 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, and calculus is the most frequently suggested elective.

If students are not soon achieving at least a 2.75 grade point average, their chances of acceptance by a medical school are minimal and they should plan their program so that other professional or vocational goals are possible.

Because of the highly structured nature of the pre-medical program and the biology or chemistry majors, it is almost mandatory for the student to follow the first year as patterned below.

First Year—Pre-Medicine

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>121 English Composition</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>131 General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>*Math</td>
<td>2-4</td>
</tr>
<tr>
<td></td>
<td>105 Biological Science (if exempt, take 222 General Zoology)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>(with two years high school biology take exempt test)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physical education activity (2) or military science</td>
<td>1</td>
</tr>
<tr>
<td>Second Semester</td>
<td>132 General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>*Math</td>
<td>3-4</td>
</tr>
</tbody>
</table>

*Students with strong high school preparation and at least "B" quality mathematics, including two years of algebra, and trigonometry, may take 120 Calculus with Analytic Geometry I during the first semester.

Students with 1-1/2—2 years of less than high quality algebra take 105 College Algebra.

Students with only one year of algebra take 104 Intermediate Algebra, followed by 105 College Algebra.

Students without trigonometry take 107 Plane Trigonometry.
PRE-MORTUARY SCIENCE CURRICULUM
Adviser Chairman, Edward L. Compere, Jr.

The pre-mortuary program requires two academic years. Before entering the professional mortuary school, the student must complete at least 52 semester hours of college work, including the following required courses.

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>121 English Composition</td>
</tr>
<tr>
<td>105 Biological Science</td>
</tr>
<tr>
<td>101 General Psychology</td>
</tr>
<tr>
<td>130 General Chemistry I, 132 General Chemistry II</td>
</tr>
<tr>
<td>Social science electives</td>
</tr>
<tr>
<td>General electives</td>
</tr>
</tbody>
</table>

PRE-PHARMACY CURRICULUM
Adviser Chairman, Edward L. Compere, Jr.

One Year

| Group I Drama, Language, Literature and Speech | 5 |
| Group II Science | 17-21 |
| 105 Biological Science (unless exempt by examination) | 4 |
| 130 General Chemistry I | 5 |
| 132 General Chemistry II | 4 |
| 222 General Botany | 4 |
| 222 General Zoology | 4 |
| Group VII Physical Education and Health | 2 |

Physical education activity courses (four activity hours)
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.

SOCIAL WORK CURRICULUM
Bachelor of Arts or Bachelor of Science Degree
Adviser Chairman, Leroy W. Watts

This program is designed to prepare students for graduate education in social work and for positions in social service requiring the bachelor’s degree. Upon completion of the curricular requirements, including 61 semester hours of specified courses, the requirements of a major in social welfare and a minor in sociology will be fulfilled. The social welfare major is an interdisciplinary major consisting of the 27 hours of required social welfare and social work courses plus the six semester hours of psychology, the three semester hours of economics and the four semester hours of biological science. The minor is a special 21-hour sociology minor. The outline of the curriculum given below identifies the specific courses for the social welfare major by an asterisk (*) and for the sociology minor by two asterisks (**) and shows their distribution among the group 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 29. 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 Humanities.

The particular curriculum and major 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.

| Group I Language | 8-9 |
| 105 Biological Science | 4 |
| 101 General Psychology | 3 |
| One additional laboratory science course from the biology, chemistry, geography, physics or psychology departments or one math course | 3-4 |
| 321 Child Psychology | 3 |
| 322 Psychology of Adolescence | 3 |
| 360 Abnormal Psychology | 3 |
| Group III Social Sciences | 59 |
| 112 American Government or 202 State and Local Government | 3 |
| 105 Introductory Sociology | 3 |
| Either of the following: | 3 |
| 201 Principles of Economics I or 200 The American Economy | 3 |
| 204 Marriage and the Family | 3 |
| 214 Racial and Cultural Minorities | 3 |
| 250 Elementary Social Statistics | 3 |
| 404 Methods in Sociological Research | 3 |
Two of the following: 
202 Social Problems
306 Urban Community
308 Social Psychology
309 Culture and Personality
406 Criminology
212 Social Welfare
213 Field Observation
314 Social Work I
315 Social Work II
317 Community Service Experience
408 Social Work III
409 Social Work IV
410 Field Experience I
411 Field Experience II

*213 Field Observation
*314 Social Work I
*315 Social Work II
*317 Community Service Experience
*408 Social Work III
*409 Social Work IV
*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 (eight activity hours) 4

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

Free electives 29-26

Total 124

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

WOMEN'S STUDIES MINOR
(Non-Teaching)

An interdisciplinary minor in Women's Studies has recently been approved. Interested students should contact Dr. Margaret L. Rossiter.

The minor in Women's Studies consists of a minimum of 20 semester hours to be distributed as follows:

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Required introductory course:</td>
<td></td>
</tr>
<tr>
<td>201 Women's Studies</td>
<td>3</td>
</tr>
<tr>
<td>Required courses (at least three of the following):</td>
<td>9-12</td>
</tr>
<tr>
<td>HIS 335 History of Women in Europe</td>
<td>3</td>
</tr>
<tr>
<td>LIT 344 Women in Literature</td>
<td>3</td>
</tr>
<tr>
<td>SOC 444 Sociology of Sex Roles</td>
<td>3</td>
</tr>
<tr>
<td>PSY 242 Psychology of Women</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>5-9</td>
</tr>
<tr>
<td>PLS 401 Women in Politics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 300 Economics of Women</td>
<td>3</td>
</tr>
<tr>
<td>FRN 451 and 452 French Feminine Fiction</td>
<td>3</td>
</tr>
<tr>
<td>HEC 501 Women in the Modern World</td>
<td>2</td>
</tr>
<tr>
<td>SPH 539 Sexism in Communication</td>
<td>3</td>
</tr>
<tr>
<td>EDL 596 Sexism and Women in Leadership Roles</td>
<td>1</td>
</tr>
<tr>
<td>497 Independent Study in Women's Studies</td>
<td>1</td>
</tr>
<tr>
<td>498 Independent Study in Women's Studies</td>
<td>2</td>
</tr>
<tr>
<td>499 Independent Study in Women's Studies</td>
<td>3</td>
</tr>
</tbody>
</table>
GRADUATE STUDY

The Art Department offers graduate work leading to the master's degree in art education and 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 the course 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 exhibition, demonstration or publication.

101 Introduction to Art. Three sem hours
An introductory course in drawing, painting and basic composition for the purposes of developing ability and understanding of form, line and color. Frequent opportunity is afforded for group criticism. Non-Art Major—restricted to early elementary or later elementary and occupational therapy majors.

107 Art History Survey I. Three sem hours
A survey of the development of the visual arts from cave art to the early Renaissance.

108 Art History Survey II. Three sem hours
A continuation of Art History Survey I from the Renaissance through modern times.

122 Two-Dimensional Design. Three sem hours
Emphasis on compositional emotional, expressive, decorative, intellectual. Studio projects, lecture, group criticism. Variety of media, color theory and color problems.

123 Drawing I. Three sem hours
A beginning course in drawing 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. Three sem hours
Emphasis is on study of composition as an extension of the principles explored in Drawing I. Imaginative organization is stressed. Extensive experimentation with various media. Subjects such as the human figure are introduced as drawing problems.

Prereq: 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.
212 History of Ancient Art. Three sem hours
A survey of the arts of the ancient Near East and of Western art through the Roman Empire.

213 History of Renaissance Art. Three sem hours
A continuation of 212 History of Art; a survey of Western art from the Gothic through the Rococo period. Prereq: 107 Art History Survey I or 108 Art History Survey II.

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.

217 History of Contemporary Art II. Three sem hours
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.

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 Design in Materials. Three sem hours
Consideration of surface organization in fabrics, walls, architecture, etc. Emphasis on the design relationships between materials and their treatment. Prereq: 122 Two-Dimensional Design.

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. Prereq: 101 Introduction to Art or 123 Drawing I.

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

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

303 Commercial Art. Two sem hours
The study of structural problems and visual techniques in connection with three-dimensional commercial design problems, such as display, product design and interiors. Prereq: 302 Commercial Art.

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.

305 Graphics. Three sem hours
Acquaintance with graphic techniques; woodcut and lithography. Prereq: Junior standing and 210 Life Drawing.

306 Graphics. Three sem hours
Advanced graphic techniques with emphasis on development of individual style through experimentation; etching and silk screen. Prereq: 305 Graphics.

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.

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

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

312 Color Theory. Three sem hours
A studio-lecture course dealing with principles of color interaction, color theory and phenomena; six hours per week. Two hours lecture and criticism, four hours studio guidance, outside problems. Prereq: 122 Two-Dimensional Design and 123 Drawing I.

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

314 Painting—Watercolor. Two sem hours
Intensive exploration of various water-based techniques—gouache, tempera, inks, etc. Prereq: 122 Two-Dimensional Design and 124 Drawing II.

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.

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

320 Jewelry. Three sem hours
Design and creation of jewelry by fabricating, casting, lapping, 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.
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.

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.

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.

404 Lettering. Two 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: 301 Commercial Design.

405 Graphics. Three sem hours
An advanced laboratory course primarily designed for art majors specializing in graphics. Individual assignments from the instructor in creative use of the more fundamental techniques learned in previous courses.

406 Graphics. Three sem hours
An advanced laboratory course for art majors taking their sequence in graphics. Projects will include lithography, etching and aqautint processes plus individual assignments from the instructor in terms of the student's specific needs.
Prereq: 405 Graphics.

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.

408 Ceramics. Three sem hours
Summation of the undergraduate ceramics program; emphasis is on individual style, production techniques, studio management, exhibition programs.
Prereq: 407 Ceramics.

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.

412 Advanced Sculpture. Three sem hours
Advanced sculpture problems; development of individual style in three-dimensional form.
Prereq: 411 Sculpture.

413 Painting—Oil. 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.

414 Advanced 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.

416 Art Methods and Materials. Two sem hours
Required of art majors in the second semester of 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.

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.

419 Advanced 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.

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 and the influences forming their styles.

423 Advanced Painting—Watercolor II. Two sem hours
Further development of individual style in watercolor.
Prereq: 414 Advanced Painting—Watercolor I.

424 Advanced Painting—Watercolor III. Two sem hours
Further development of individual style in watercolor.
Prereq: 423 Advanced Painting—Watercolor II.

425 Advanced Oil Painting. Three sem hours
Further development of individual painting style.
Prereq: 413 Painting—Oil.

426 Medieval Art History. Three sem hours
The development of Medieval Art from the Early Christian through the Gothic periods.
Prereq: Survey I 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: 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.

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.

432 Advanced Drawing. Three sem hours
Drawing as expressive composition. Integration of the techniques of previous courses. Development of individual direction. Includes a variety of media and the study of master drawings.
Prereq: 210 Life Drawing.
Directed Studio Problems. One sem hour Advanced study on an individual basis; restricted to juniors and seniors with permission of the department.

Directed Studio Problems. Two sem hours

Directed Studio Problems. Three sem hours For advanced study on individual basis in areas in which the department does not have regular course work. Normally such work is restricted to proficient students in the senior year under the general conditions prescribed for honors courses. Prereq: Permission of the department.

BIOLOGY

Department Head: Herbert H. Caswell, Jr.


Associate Professors: Edith M. Hurst, Dennis C. Jackson, Merlyn C. Minick, Lawrence P. Richards, Paul A. Volz, Dale C. Wallace, Shih-An Yu


MAJOR AND MINORS

Biology Major (30 semester hours)

The Department of Biology offers a major in biology, which permits concentrated study in aquatic biology, community college biology teaching, general biology, microbiology or physiology.

Students applying for teaching certification must select the general biology area of concentration.

203 Science for the Elementary Teacher, 302 Elementary School Science and 403 Methods and Materials for Teaching Biology are Group IV courses and will not count as electives on a biology major or minor.

Students in the curriculum for secondary education who elect a minor in botany or zoology with a biology major must complete a second minor outside of the Biology Department to qualify for teaching certification.

Semester Hours

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>105 Biological Science</td>
<td>4</td>
</tr>
<tr>
<td>(Unless exempted by examination, in which case an additional elective in area of concentration may be taken.)</td>
<td></td>
</tr>
<tr>
<td>221 General Botany</td>
<td>4</td>
</tr>
<tr>
<td>222 General Zoology</td>
<td>4</td>
</tr>
<tr>
<td>Area of Concentration</td>
<td>18</td>
</tr>
<tr>
<td>(Select one area from aquatic biology, community college biology teaching, general biology, microbiology, physiology.)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
</tr>
</tbody>
</table>

All biology majors are required to take chemistry through organic (131, 270).

Areas of Concentration

1. Aquatic Biology

| 320 General Physiology | 4 |
| 410 Limnology | 3 |
| 411 Limnological Methods | 2 |
| 496 Practicum Aquatic Biology | 3 |
| *A taxonomic course in botany | 3 |
| *A taxonomic course in zoology | 3 |

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

A field experience at a biological station is highly recommended.

2. Community College Biology Teaching

| 301 Genetics | 3 |
| 302 Genetics Lab | 2 |
| 312 Plant Anatomy or | 3-4 |
| 324 Comparative Anatomy | |

*Must be approved by an aquatic biology adviser.
320 General Physiology .................................. 4
Taxonomic Field Course ................................. 3
420 Ecology .................................................. 3

It is recommended that the student electing this area of concentration minor in botany, chemistry or zoology.
This program leads to and terminates with a M.S. degree.

3. General Biology .............................. 18
301 Genetics ........................................... 3
320 General Physiology ................................ 4
420 Ecology or 410 Limnology ......................... 3
One Taxonomic Field Course ............................. 3
Electives in biology ........................................ 5
(Any group II biology course, except 205 Field Biology, 207 Elements of Ecology, and 270 Human Physiology.)

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 ..................................... 18-20
301 Genetics ........................................... 3
330 General Microbiology Lab ............................. 2
331 General Microbiology ................................ 3
442 Microbial Ecology .................................... 3
444 Microbial Physiology .................................. 3
One or two of the following: 4-6
304 Mycology ............................................ 3
345 Medical Mycology .................................... 4
360 Parasitology .......................................... 3
430 Plant Morphology of Algae and Fungi .............. 4
451 Freshwater Algae ..................................... 3
480 Protozoology ......................................... 3

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

5. Physiology ......................................... 18
320 General Physiology .................................. 4
Two of the following: 6
310 Plant Physiology ..................................... 3
327 Vertebrate Physiology ................................. 3
444 Microbial Physiology .................................. 3
Electives .................................................. 8-12
Selected from:
331 General Microbiology ................................ 3
301 Genetics ........................................... 3
304 Mycology ............................................ 3
305 Neuroanatomy ....................................... 3
311 Plant Pathology ...................................... 3
312 Plant Anatomy ........................................ 3
323 Animal Embryology .................................. 3
324 Comparative Anatomy ................................ 4
400 Principles of Biological Techniques ................. 1
401 Biological Techniques ................................ 2
404 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 Taxonomic Field Courses are:
300 Natural History of Invertebrates
302 Systematic Botany
310 Natural History of Vertebrates
354 Trees and Shrubs
421 Entomology
422 Ichthyology
425 Ornithology
450 Aquatic Tracheophyta
451 Freshwater Algae
480 Protozoology
482 Aquatic Entomology
485 Mammalogy

Biology Minor (20-24 semester hours)

Required Courses ............................................. 12
105 Biological Science ................................... 4
(unless exempted by examination)
221 General Botany ......................................... 4
222 General Zoology ....................................... 4
Electives to total 20 semester hours ........................ 12-8
(Any Group II biology course except 205 Field Biology)

No more than four hours of electives may be taken in BIO 49 or BIO 492 Special Problems in Biology.

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

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 and the methods course may be included in that total.

Botany Minor (20 semester hours).

Open only to those who are majoring in biology. Students electing this minor must consult with an appropriate adviser or guidance committee to obtain and file an approved schedule of electives chosen from courses in the botany and biology areas. No substitute courses will count on the minor unless specifically approved by the adviser or guidance committee. Contact department office for assignment to guidance committee or adviser.

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 department office for assignment to guidance committee or adviser.

Minor in Conservation and Resource Use (24 semester hours)

Robert O. Belcher, Adviser

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

Semester Hours ............................................ 13
108 Earth Science ......................................... 4
*207 Elements of Ecology ................................ 2
224 Principles of Conservation ........................... 4
*200 The American Economy ............................. 3

*The prerequisite for 207 Elements of Ecology is 105 Biological Science or exemption by test. Students planning to take this minor who are not exempted from 105 Biological Science should elect 107 for basic studies credit in the freshman year. Biology majors minoring in conservation will take 420 Ecology on the major and substitute an additional approved elective for the minor.

**Students who prefer to elect 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.
Electives sufficient to bring total to 24 hours, selected from among the following courses:

- 114 National Parks ........................................... 1
- 211 Geography of the United States and Canada .......... 3
- 215 Economic Botany ........................................... 3
- 201-202 Principles of Economics .......................... 6
- 223 Weather and Climate ..................................... 3
- 229 Rocks of Michigan ........................................ 2
- 232 Nature Interpretation ..................................... 3
- 235 Economic Geography ....................................... 2
- 375 Economic History of the United States ............... 3
- 306 Urban Community ......................................... 3
- 332 Urban Geography .......................................... 3
- 334 Population .................................................. 3
- 424 Climatology ................................................. 2

Appropriate field and summer courses may be substituted as electives as approved by the adviser chairman.

Students are urged to meet the required course in government with 202 State and Local Government.

Students electing this minor must confer with the adviser chairman for this program to obtain an approved schedule of electives. No substitutes on the approved program will count toward its completion unless approved by the adviser chairman.

**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 in the 500's if recommended by their advisers and approved by the Dean of the Graduate School. For details, consult the Graduate Catalog.

**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.

**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 tropics. Investigation is in both marine and terrestrial environments. Lectures plus much laboratory and field work are required. 
  Preqq: General biology, general zoology, some concept of ecological principles and some familiarity with use of taxonomic keys.

- 491 Special Problems in Biology. One sem hour

**FIELD COURSES AT FISH LAKE**

KRESGE ENVIRONMENTAL EDUCATION CENTER

Frank L. Sinclair, Director

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.

Commencing spring 1975, a full resident program of field courses will be offered. These courses are primarily at the undergraduate level, however, certain courses and independent studies are available for graduate students. Room and board fees are essentially the same as on campus. Registration and tuition payments are made during the regular spring registration. Limited numbers of commuters can also be accommodated.

Commencing Summer 1975, a full resident program which will meet the needs of graduate students and in-service teachers will be instituted. Emphasis will be on field courses and environmental education courses. These courses may also be suitable for seniors and some will be available to undergraduates.

During fall and winter semesters, workshops are held on Saturdays. Descriptions of these workshops can be obtained upon request from Eastern Michigan University, Division of Field Services. These materials will also include information about housing and food costs, when these services are available. Tuition is $32.00 per credit hour for field service courses.

**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 Division of Field Services, 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.

223 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.

COOPERATIVE FIELD COURSE
AT KENSINGTON METROPOLITAN PARK

232 Nature Interpretation. Three sem hours
A field course conducted at the nature center and along the nature trails in Kensington Metropolitan Park under the joint auspices of Eastern Michigan University and the Huron-Clinton Metropolitan Authority. Combines intensive field and museum work in natural history with practical training and experience in interpreting natural objects and settings to individuals and groups. Previous field work in natural history and course work in biology essential. Administered through the Division of Field Services. Course meets five hours daily, Monday through Friday, for three weeks.

COURSES

Biology

105 Biological Science. Four sem hours
A lecture and laboratory course in the basic principles of the biological world and their practical applications to the affairs of man. A terminal course for those not wishing to continue in science, it is also an introduction to basic courses in botany and zoology. Students who have had 221 General Botany or 222 General Zoology may not elect this course. Two one-hour lectures, one one-hour recitation, plus audio-tutorial laboratory experience. Exemption test available, Department of Biology Office.

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 Biological Science 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 Biological Science 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.

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 and 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: 105 Biological Science, 221 General Botany, 222 General Zoology, 131 General Chemistry I. Organic chemistry is recommended.

329 General Cytology. Three sem hours
A lecture course covering the microscopic structure, chemical composition and function of cytoplasmic and nuclear components of the cell and their relation to heredity, reproduction and development. Prereq: 221 General Botany, 222 General Zoology and 270 Organic Chemistry.

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: 221 General Botany or 222 General Zoology. Coreq: 400 Principles of Biological Techniques.

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.) Prereq: 222 General Zoology and 221 General Botany.

405 Organic Evolution. Two sem hours
The processes involved in the origin and evolution of life
radiation, mutation effects of radiation, mammalian chemistry.

410 Limnology. Three sem hours
A lecture, laboratory and field course dealing with physical-chemical 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
Introduction to field and laboratory techniques in limnology. Prereq: 410 Limnology and permission of the department.

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 genetic material will be discussed at molecular level. Prereq: 301 Genetics. Organic chemistry, biochemistry desirable.

442 Microbial Ecology. Three sem hours
Interactions among microbes (fungi, bacteria, some phages) other living organisms and the environment, with emphasis 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 and supramolecular effects of corpuscular and electromagnetic radiations. Topics will cover the basic mechanisms of biological reactions to radiation, mutational effects of radiation, mammalian response to radiation, radiational studies with plants and radiation safety. A lecture course. Prereq: Plant or animal physiology, one year physics, one year chemistry. Genetics is desirable.

491 Special Problems in Biology. One sem hour
Provision of practical experience in a particular field study, including experimental design and the 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.

492 Special Problems in Biology. Two 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
330. General Microbiology Laboratory. Two sem hours
A lecture and laboratory course on qualitative and quantitative aspects of microbiology in relation to 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.
Prereq: 105 Biological Science or equivalent.

331. General Microbiology. Three sem hours
A lecture and laboratory course of physiological studies on bacteria and other microbes (metabolism, genetics, growth and death); their ecological relationships in natural and controlled environments, and the interactions of pathogenic microorganisms and their animal, human and plant hosts.
Prereq: 105 Biological Science, 221 General Botany or 222 General Zoology or 270 Human Physiology and Chemistry 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 Chemistry 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 bio-synthesis of polymers by microbes.
Prereq 331 General Microbiology, 330 General Microbiology Laboratory. 270 Organic Chemistry.

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 importance. 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.

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 Biological Science.

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: 105 Biological Science or exemption. 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 105 Biological Science 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 nervous system of the human body, lesions of the nervous system and resulting disabilities. Prereq: 200 Anatomy for Occupational Therapy Students or 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 Biological Science 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 at day or night, will emphasize accurate observation and permanent recording of original data on local species. Counts as taxonomic field course.
Prereq: 222 General Zoology.

322 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 study of physiological phenomena of the vertebrate body at the cellular and organ level with laboratory experiments to illustrate. Two one-hour lectures, one four-hour laboratory. Prereq: 222 General Zoology. 320 General Physiology, 270 Organic Chemistry or equivalent. Some 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 Histology. Three sem hours
An introduction to the structure and properties of vertebrate organs and their component tissues with some experience in the techniques for their microscopic study in the laboratory. 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.

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 general ecology, including adaptations to the aquatic environment, life histories and taxonomy are stressed. A collection of the common aquatic insect families of the area is required. Counts as a taxonomic field course.
Prereq: 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, including behavior, migration, reproduction and population dynamics. 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 on page 146)

203 Science for the Elementary Teacher. Three sem hours
Important biological concepts, especially relating to the interrelationships of organisms within their environment will be stressed. Considerable emphasis will be placed on the investigative or “discovery” type approach. The methodology involved in the newer approaches to teaching science will be an integral part of the course. One hour of lecture and two hours weekly involving recitation, laboratory or field work. Concluding course in the Elementary Science sequence. (Group IV course).

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.

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.

CHEMISTRY

Department Head: Clark G. Spike
Associate Professors: Stephen W. Brewer, Giles F. Carter, John W. Moore, Krishnaswamy Rengan, Bruce D. West, Jerry R. Williams
Assistant Professors: Kenneth W. Hicks, Elva Nicholsop, Donald B. Phillips, Ralph R. Powell, Stephen E. Schullery

CURRICULUMS

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 page. While doing so, 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.

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 “freeelectives” 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.

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

First Year

<table>
<thead>
<tr>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>First Semester</td>
</tr>
<tr>
<td>131 General Chemistry I</td>
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<tr>
<td>120 Calculus with Analytical Geometry I</td>
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<tr>
<td>Second Semester</td>
</tr>
<tr>
<td>132 General Chemistry II</td>
</tr>
<tr>
<td>121 Calculus with Analytical Geometry II</td>
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<tr>
<td>122 Elementary Linear Algebra</td>
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<tr>
<td>Second Year</td>
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<tr>
<td>First Semester</td>
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<tr>
<td>281 Quantitative Analysis</td>
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<tr>
<td>371 Organic Chemistry</td>
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</tbody>
</table>
220 Calculus with Analytical Geometry III ..... 3
223 Mechanics, Sound and Heat ..... 5

**Second Semester**
372 Organic Chemistry ..... 3
373 Organic Chemistry Laboratory ..... 2
221 Calculus with Analytical Geometry IV ..... 3
224 Electricity and Light ..... 5

**Third Year**

**First Semester**
461 Physical Chemistry ..... 3
374 Organic Chemistry Laboratory ..... 2

**Second Semester**
463 Physical Chemistry ..... 3
402 Physical Chemistry Laboratory ..... 2

**Fourth Year**
432 Advanced Inorganic Chemistry ..... 3
481 Instrumental Analysis ..... 4

Advanced elective courses (Two advanced courses from the list below must be selected; at least one must be from the Chemistry Department). *

**Approved Advanced Electives:**
- Chemistry:
  - 451-452 Biochemistry
  - 472-473 Spectrometric Organic Structure Determination
  - 485 Radioisotope Techniques in Chemistry and Biology
  - 496-497 Special Topics
  - 498-499 Special Problems
  - 530 X-Ray Crystallography
  - 532 Structural Inorganic
  - 553 Enzymology
  - 555 Biopolymers
  - 561 Advanced Physical Chemistry
  - 565 Nuclear Chemistry
  - 571 Advanced Organic
  - 572 Stereochemistry of Organic Compounds
  - 575-576 High Polymer Chemistry
  - 581 Analytical

**Mathematics:**
- 237 Computer Programming and Numeric Methods
- 320 Differential Equations I
- 337 Programming Languages
- 425 Mathematics for the Scientist I
- 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.

**First Year**

**First Semester**
131 General Chemistry ..... 5
120 Calculus with Analytical Geometry I ..... 4
123 Metal Processes ..... 3

**Second Semester**
132 General Chemistry ..... 4
121 Calculus with Analytical Geometry II ..... 2
122 Elementary Linear Algebra ..... 2

**Second Year**

**First Semester**
281 Quantitative Analysis ..... 4
223 Mechanics, Sound and Heat ..... 5
220 Calculus with Analytical Geometry III ..... 3

**Second Semester**
270 Organic Chemistry ..... 4
271 Organic Chemistry Laboratory ..... 1
221 Calculus with Analytical Geometry IV ..... 3
224 Electricity and Light ..... 5

**Third Year**

**First Semester**
463 Physical Chemistry ..... 3
237 Computer Programming and Numeric Methods ..... 3
241 Materials Science ..... 3
242 Materials Science Laboratory ..... 1

**Second Semester**
463 Physical Chemistry ..... 3
462 Physical Chemistry Laboratory ..... 2
341 Principles of Metallurgy ..... 3

**Fourth Year**

**First Semester**
432 Advanced Inorganic Chemistry ..... 3
342 Experimental Metallurgy ..... 1

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

**MAJOR AND MINOR**

**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

*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.*
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

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

Biochemistry Majors

Two majors are being developed in biochemistry. The professional biochemistry major will provide 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 do not require the extensive background provided by the professional major. Interested students should make direct inquires at the Chemistry Department.

Program for Teachers of General Science (see page 99)
Program for Teachers of Physical Science (see page 99)

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 sections of the following courses: 132 General Chemistry II, 281 Quantitative Analysis, 371 and 372 Organic Chemistry and 373 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 will be especially well prepared to take the more advanced chemistry courses, including a research project in their senior year should they so desire.

Eligibility for the honors program is based on the student's interest and his or her 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 be invited to register in honors 132 General Chemistry II in the winter term. Alternatively, students may apply to the Honors Committee for permission to enroll in an honors section. 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

Chemistry

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 and Astronomy. 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 on 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; one and a half years of high school algebra.

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: three 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 chemistry of the elements is correlated with the periodic table, atomic structures and basic chemical principles. Lecture: 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. Lecture: three hours per week.
Prereq: 131 General Chemistry, Physics 221 or 223 Mechanics, Sound and Heat; Mathematics 120 Calculus with Analytic Geometry 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. Lecture: 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. Laboratory: one three-hour period per week.

281 Quantitative Analysis. Four sem hours
A lecture and laboratory course treating instrumental, gravimetric and volumetric analysis. Lecture: two hours per week. Laboratory: six hours per week.
Prereq: 132 General Chemistry II.

282 Honors Quantitative Analysis. Four sem hours
A lecture and laboratory course treating instrumental, trace, separation, and characterization techniques. Lecture: two hours per week. Laboratory: six hours per week.
Prereq: 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, admission to program by application only.

341 Principles of Metallurgy. Three sem hours
A course covering the winning and refining of metals, their structure, diffusion, heat treatment, hardening and corrosion.
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. Laboratory: three hours per week.
Prereq: 242 Materials Science Laboratory or 341 Principles of Metallurgy.
Coreq: 341 Principles of Metallurgy prereq. or corq.

351 Introductory Biochemistry. Three sem hours
A lecture course primarily for medical technology and dietetics students dealing with the structure, function and metabolism of biologically significant compounds and with the chemistry of physiological processes. No credit for both 351 and 451. Lecture: 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, flame photometry, spectrophotometry. Laboratory: four hours per week.
Prereq: 271 Organic Chemistry Laboratory or equivalent.
Coreq: 351 Introductory Biochemistry.

361 Fundamentals of Physical Chemistry. Three sem hours
Foundations of physical chemistry. An introduction to some of the basic principles of physical chemistry, i.e., thermodynamics, kinetics and quantum theory. This course is applicable to the 30-hour chemistry major and chemistry minor. Credit cannot be applied to the 40-hour major. Lecture: three hours per week.
Prereq: 132 General Chemistry II. Math 120 Calculus with Analytic Geometry I. and one year of college physics.

362 Physicochemical Measurements. One sem hour
A one-semester laboratory course whose emphasis is on measurements of physical constants. Experiments are chosen to illustrate physical measurements in the areas of thermodynamics, kinetics and quantum mechanics. This course is applicable to the 30-hour chemistry major and the chemistry minor. Credit cannot be applied to the 40-hour major. Laboratory: four hours per week.

371 Organic Chemistry. Three sem hours
A lecture course for students specializing in science and those preparing for dentistry or medicine. Lecture: three hours per week. Not open to students who have had credit for 270 Organic Chemistry.
Prereq: 131 General Chemistry I. 132 General Chemistry II recommended.
372 Organic Chemistry. Three sem hours
A continuation of 371 Organic Chemistry, and with it constituting the customary year of foundation work in organic chemistry. This course must be accompanied by 373 Organic Chemistry Laboratory. Lecture: three hours per week.
Prereq: 371 Organic Chemistry.

373 Organic Chemistry Laboratory. Two sem hours
A laboratory course covering basic techniques involved in organic chemistry. This course must be taken concurrently with 372 Organic Chemistry. Laboratory: six hours per week.

374 Organic Chemistry Laboratory. Two sem hours
A laboratory course covering advanced techniques of organic chemistry. Laboratory: six hours per week.
Prereq: 372 Organic Chemistry and 373 Organic Chemistry Laboratory.

375 Honors Organic Chemistry. Three sem hours
Similar to Chemistry 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. Three sem hours
Similar to Chemistry 372 Organic Chemistry and limited to those admitted to the Chemistry Honors Program and those who have received credit in Chemistry 375. Continuation of 375 and with it constituting the customary year of work in organic chemistry at a higher level than that offered in the 371-372 sequence. Must be accompanied by 377 Honors Organic Chemistry Laboratory. Lecture: three hours per week.
Prereq: 375 Honors Organic Chemistry.

377 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 Laboratory: 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, permission 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.

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, 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 biologically important compounds. Modern laboratory techniques are stressed. Laboratory: six hours per week.
Prereq: 271 Organic Chemistry Laboratory or equivalent. Coreq: 451 Biochemistry. 281 Quantitative Analysis is recommended.

453 Biochemistry. Three sem hours
A lecture course continuing the surveys 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.

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 220 Analytic Geometry and Calculus III.

462 Physical Chemistry Laboratory. Two sem hours
A course involving the determination of physical properties of substance, 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 221 Analytic Geometry and Calculus IV.

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. Microtechniques are emphasized. Laboratory: six hours per week.

481 Instrumental Analysis. Four sem hours
Theory and practice of chemical analysis and measurements 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 prac-
490 Literature of Chemistry. A course designed to provide an introduction to the use and nature of the chemical literature for those students undertaking research or advanced study. Lecture: two hours per week. 

Prereq: 131 General Chemistry I and one science lab course above the introductory level, or permission of the department.

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 his research problem and to participate in seminars discussing closely related work in the recent literature. A detailed progress report is required 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-Ish Chung

Professors: Charles E. Helppie, John W. Simpson, Carl D. Snyder

Associate Professors: James R. Gibbons, Donald W. Pearson

Assistant Professors: Thomas C. Anderson, Wayne M. Ayers, Ahmad E. El-Safty, Daniel R. Kazmer, Mary F. McCarthy, Harold E. Simmons

The Economics Department offers a major and a minor in Economics. In addition, it administers an interdisciplinary major and minor in Labor Studies.

The Economics Department participates in the majors and minors in Area Studies (Africa, Asia/Far East, Latin America, Middle East/North Africa, Soviet Union). See page 84 for requirements.

**MAJORS AND MINORS**

**Economics**

Major (30 semester hours)

<table>
<thead>
<tr>
<th>Required courses:</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>201 Principles of Economics I</td>
<td>3</td>
</tr>
<tr>
<td>202 Principles of Economics II</td>
<td>3</td>
</tr>
<tr>
<td>301 Intermediate Macroeconomic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>302 Intermediate Microeconomic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>310 Economic Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Electives in economics</td>
<td>15</td>
</tr>
</tbody>
</table>

Note: For students intending to pursue graduate studies in economics, a cognate minor in mathematics is strongly recommended.

Minor (20 semester hours)

<table>
<thead>
<tr>
<th>Required courses:</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>201 Principles of Economics I</td>
<td>3</td>
</tr>
<tr>
<td>202 Principles of Economics II</td>
<td>3</td>
</tr>
<tr>
<td>Electives in economics</td>
<td>14</td>
</tr>
</tbody>
</table>

**Conservation and Resource Use Minor** (See page 48)

**Labor Studies**

Major (30 semester hours)

<table>
<thead>
<tr>
<th>Required courses:</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Econ 310 Economic Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Acct 240 Principles of Accounting</td>
<td>3</td>
</tr>
<tr>
<td>Econ 320 Labor Economics</td>
<td>3</td>
</tr>
<tr>
<td>Econ 424 Seminar in Labor Issues</td>
<td>3</td>
</tr>
<tr>
<td>Electives in Labor Studies</td>
<td>16</td>
</tr>
</tbody>
</table>

Minor (20 semester hours)

Any 20 hours from the list of courses in the Labor Studies program.

**Labor Studies Courses**

<table>
<thead>
<tr>
<th>Required courses:</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Econ 310 Economic Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Econ 320 Labor Economics</td>
<td>3</td>
</tr>
<tr>
<td>Econ 321 Black Workers and Labor Market</td>
<td>3</td>
</tr>
<tr>
<td>Econ 322 American Labor Unions</td>
<td>3</td>
</tr>
<tr>
<td>Econ 323 Labor and Government</td>
<td>3</td>
</tr>
<tr>
<td>Econ 420 Comparative Labor Unionism</td>
<td>3</td>
</tr>
<tr>
<td>Econ 422 Union Leadership</td>
<td>3</td>
</tr>
<tr>
<td>Econ 424 Seminar in Labor Issues</td>
<td>3</td>
</tr>
<tr>
<td>Econ *522 Collective Bargaining</td>
<td>3</td>
</tr>
<tr>
<td>Econ *524 White Collar and Public Employee Unionism</td>
<td>2</td>
</tr>
</tbody>
</table>

*Graduate courses open to senior undergraduates with 2.5 grade point average.
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 but plan to take no other course in economics. 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 with Analytic Geometry I and 121 Calculus with Analytic Geometry 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: 201 and 202 Principles of Economics or equivalent.

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 economic time series data; index construction and interpretation; and introductory regression analysis. Prereq: 210 Mathematics for Economics or Mathematics 104 Higher Algebra I or more advanced mathematics course.

320 Labor Economics. Three sem hours
A study of the wage determination and labor market influences and from the perspective of the labor union or employer. Prereq: 201 and 202 Principles of Economics or equivalent.

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: 201 and 202 Principles of Economics or permission of the department.

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: 201 and 202 Principles of 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: 201 and 202 Principles of Economics or equivalent.

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 procedures 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: 201 and 202 Principles of Economics or equivalent.

365 Public Utility Economics. Three sem hours

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.

371 Latin American Economic Problems.
Three sem hours
A general survey of major problems for economic development in Latin America. Emphasis is placed on the discussion of problems common to the area rather than specific study of one or a few countries.
Prereq: 201 and 202 Principles of Economics or permission of the department.

375 Economic History of the United States.
Three sem hours
A study of the economic development of the United States.

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.

400 Problems in Economic Theory.
Two sem hours
A thorough study of selected problems in economic theory.
Prereq: 301 Intermediate Macroeconomic Analysis or 302 Intermediate Microeconomic Analysis or permission of the department.

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 or equivalent.

415 Econometrics.
Three sem hours
The application of mathematical economic theory and statistical procedures to economic data.
Prereq: 310 Economic Statistics or Mathematics 104 Higher Algebra I and three hours of higher mathematics.

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 equivalent.

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.

432 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.

445 Business Cycles.
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: 302 Intermediate Microeconomic Analysis or permission of the department.

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  
**Associate Professors:** Paul S. Bruss, Franklin D. Case, Jeffrey L. Duncan, David J. Geberin, Arthur J. Harris, Betty J. Ingram, E. Jay Jernigan, Robert G. Kraft, Donald A. Lawniczak, Paul D. McGlynn, Ronald A. Mohl, William F. Shuter, Ronald L. Trowbridge  
**Instructor:** Richard L. Wright

### MAJORS OFFERED BY THE ENGLISH DEPARTMENT

**Major in Literature (30 semester hours)**

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Required courses:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Any two of the following:</td>
<td></td>
</tr>
<tr>
<td>100, 101, 102, 103, 251, 260</td>
<td>6</td>
</tr>
<tr>
<td>2. 210 Shakespeare</td>
<td>3</td>
</tr>
<tr>
<td><strong>B. Restricted electives: one course in each of the following four groups:</strong></td>
<td>12</td>
</tr>
<tr>
<td>1. 305 or 314 or 315 or 316 or 340</td>
<td></td>
</tr>
<tr>
<td>2. 317 or 318 or 319 or 327 or 330 or 341</td>
<td></td>
</tr>
<tr>
<td>3. 331 or 401 or 404 or 405 or 407 or 434</td>
<td></td>
</tr>
<tr>
<td>4. 326 or 408 or 409 or 410</td>
<td></td>
</tr>
<tr>
<td><strong>C. Electives:........................................................................... 9</strong></td>
<td></td>
</tr>
</tbody>
</table>

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

**Group Major in Literature, Language, Speech and Dramatic Arts (36 semester hours) for elementary teachers. See page 147.**

**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.

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Basic literature courses:</strong></td>
<td></td>
</tr>
<tr>
<td>1. Any two of the following:</td>
<td></td>
</tr>
<tr>
<td>100, 101, 102, 103, 251, 260</td>
<td>6</td>
</tr>
<tr>
<td>2. 210 Shakespeare</td>
<td>3</td>
</tr>
<tr>
<td><strong>B. Basic language course:</strong></td>
<td>3</td>
</tr>
<tr>
<td>301 Introduction to English Language or 302 Modern English Syntax or 321 History of the English Language</td>
<td></td>
</tr>
<tr>
<td><strong>C. Advanced writing course:</strong></td>
<td>3</td>
</tr>
</tbody>
</table>

**Major in English Linguistics (30 semester hours)**

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Required Courses:</strong></td>
<td></td>
</tr>
<tr>
<td>301 Introduction to the English Language</td>
<td>15</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>425 Advanced English Syntax</td>
<td></td>
</tr>
<tr>
<td><strong>B. Electives chosen from the following:</strong></td>
<td>15</td>
</tr>
<tr>
<td>121 English Composition</td>
<td></td>
</tr>
<tr>
<td>210 Shakespeare</td>
<td></td>
</tr>
<tr>
<td>305 Shakespeare: The Major Comedies and Histories</td>
<td></td>
</tr>
<tr>
<td>314 Old English</td>
<td></td>
</tr>
<tr>
<td>315 The Age of Chaucer</td>
<td></td>
</tr>
<tr>
<td>420 Old English Poetry</td>
<td></td>
</tr>
<tr>
<td>340 Language and Culture (Sociology)</td>
<td></td>
</tr>
<tr>
<td>381 Symbolic Logic (Philosophy)</td>
<td></td>
</tr>
</tbody>
</table>

**Major in English Language (30 semester hours)**

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Required courses in advanced writing or journalism (Any three of the following courses):</strong></td>
<td>9</td>
</tr>
<tr>
<td>215 Journalism</td>
<td></td>
</tr>
<tr>
<td>306 Feature, Interpretive and Editorial Writing</td>
<td></td>
</tr>
<tr>
<td>325 Expository Writing</td>
<td></td>
</tr>
<tr>
<td>335 Imaginative Writing</td>
<td></td>
</tr>
<tr>
<td><strong>B. Required courses in linguistics (Any three of the following courses):</strong></td>
<td>9</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>320 Introduction to Linguistic Science</td>
<td></td>
</tr>
<tr>
<td>321 History of the English Language</td>
<td></td>
</tr>
<tr>
<td>425 Advanced English Syntax</td>
<td></td>
</tr>
<tr>
<td><strong>C. Electives chosen from the following:</strong></td>
<td>12</td>
</tr>
<tr>
<td>121 English Composition</td>
<td></td>
</tr>
<tr>
<td>210 Shakespeare</td>
<td></td>
</tr>
</tbody>
</table>
MINORS OFFERED BY THE ENGLISH DEPARTMENT

An additional four hours beyond the minimum 20 hours for graduation must be completed to meet North Central Association requirements (24) for teaching the following minors at the junior-senior high level. Up to four hours of composition, speech or English methods can be included in that total.

Minor in Language and Literature (20-24 semester hours)

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Any two of the following: 100, 101, 102, 103, 251, 260</td>
</tr>
<tr>
<td>2. 210 Shakespeare</td>
</tr>
<tr>
<td>One of the following: 321 History of the English Language</td>
</tr>
<tr>
<td>301 Introduction to the English Language</td>
</tr>
<tr>
<td>302 Modern English Syntax</td>
</tr>
<tr>
<td>320 Introduction to Linguistic Science</td>
</tr>
<tr>
<td>One of the following: 215 Journalism</td>
</tr>
<tr>
<td>325 Expository Writing</td>
</tr>
<tr>
<td>335 Imaginative Writing</td>
</tr>
<tr>
<td>422 Writer's Workshop</td>
</tr>
<tr>
<td>Electives in literature, composition, or linguistics</td>
</tr>
</tbody>
</table>

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

Minor in Literature (21-24 semester hours)

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses: 1. Any two of the following: 100, 101, 102, 103, 251, 260</td>
</tr>
<tr>
<td>2. 210 Shakespeare</td>
</tr>
<tr>
<td>One of the following: 305, 314, 315, 316, 317, 318, 319, 327, 330, 340, 341</td>
</tr>
<tr>
<td>One of the following: 328, 331, 401, 404, 405, 407, 408, 409, 410, 434</td>
</tr>
<tr>
<td>Electives in literature</td>
</tr>
</tbody>
</table>

Students on curriculums for elementary teachers may elect the following variation of this minor:

Minor in Children's Literature (21 semester hours)

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required courses: Any two of the following: 100, 101, 102, 103, 251, 260</td>
</tr>
<tr>
<td>207 Introduction to Children's Literature</td>
</tr>
<tr>
<td>350 Critical Evaluation of Children's Literature</td>
</tr>
</tbody>
</table>

Three of the following: 204, 210, 251, 351, 352

Students seeking a concentration in English language study may elect the following variations of the Minor in Language and Literature:

Minor in English Linguistics (21-24 semester hours)

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Required courses (any two of the following courses): 301 Introduction to the English Language</td>
</tr>
<tr>
<td>302 Modern English Syntax</td>
</tr>
<tr>
<td>320 Introduction to Linguistic Science</td>
</tr>
<tr>
<td>321 History of the English Language</td>
</tr>
<tr>
<td>B. Electives chosen from the following: 121 English Composition</td>
</tr>
<tr>
<td>210 Shakespeare</td>
</tr>
<tr>
<td>301 Introduction to the English Language</td>
</tr>
<tr>
<td>302 Modern English Syntax</td>
</tr>
<tr>
<td>314 Old English</td>
</tr>
<tr>
<td>315 The Age of Chaucer</td>
</tr>
<tr>
<td>320 Introduction to Linguistic Science</td>
</tr>
<tr>
<td>321 History of the English Language</td>
</tr>
<tr>
<td>420 Old English Poetry</td>
</tr>
<tr>
<td>425 Advanced English Syntax</td>
</tr>
</tbody>
</table>

Minor in English Language (21-24 semester hours)

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Required courses in advanced writing or journalism (any two of the following courses): 215 Journalism</td>
</tr>
<tr>
<td>306 Feature, Interpretive and Editorial Writing</td>
</tr>
<tr>
<td>335 Imaginative Writing</td>
</tr>
<tr>
<td>B. Required courses in linguistics (any two of the following courses): 301 Introduction to the English Language</td>
</tr>
<tr>
<td>304 History of the English Language</td>
</tr>
<tr>
<td>321 History of the English Language</td>
</tr>
<tr>
<td>335 Imaginative Writing</td>
</tr>
<tr>
<td>422 Writer's Workshop</td>
</tr>
</tbody>
</table>

Minor in Journalism (24 semester hours)

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required courses: 215 Journalism</td>
</tr>
<tr>
<td>216 Emergence of American Journalism</td>
</tr>
<tr>
<td>306 Feature, Interpretive and Editorial Writing</td>
</tr>
<tr>
<td>310 Contemporary Problems in Journalism</td>
</tr>
<tr>
<td>Electives chosen from the following: 307 Editing and Advising High School Publications</td>
</tr>
<tr>
<td>325 Expository Writing</td>
</tr>
<tr>
<td>335 Imaginative Writing</td>
</tr>
<tr>
<td>422 Writer's Workshop</td>
</tr>
<tr>
<td>425 Advanced English Syntax</td>
</tr>
</tbody>
</table>

Electives chosen from the following:

307 Editing and Advising High School Publications
325 Expository Writing
335 Imaginative Writing
422 Writer's Workshop
425 Advanced English Syntax
HONORS PROGRAM IN ENGLISH

The Department of English offers an honors program to stimulate able students by allowing them greater flexibility of program and independence of study than are permitted on 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 special sections of both 121 English Composition and 101-102 Reading of Literature available. Sophomores who plan to become candidates for honors are encouraged to enroll in the 298-299 Survey of English Literature. Near the end of their sophomore year, those desiring honors shall address to the director of the honors program a written application for admission to the program. Upon approval they will enroll in 298-299 Junior Honors Seminar and then the following year in 498-499 Senior Honors Seminar. Their successful completion of regular course work, an honors essay and a comprehensive examination will bring recognition of honors in English as part of their permanent record. Transfer students who wish to join the program should feel that their application for admission is entirely welcome. For further information, call at the office of the Department of English Language and Literature.

298 Survey of English Literature (Honors).
Three sem hours
A survey of English literature from the Middle Ages through the eighteenth century. Prereq: Superior performance in freshman literature courses and departmental approval.

299 Survey of English Literature (Honors).
Three sem hours
A survey of English literature from 1800 to the present. Prereq: Superior performance in freshman literature courses and departmental approval.

398 Junior Honors Seminar.
Three sem hours
A seminar designed to meet the individual needs of students, to give them more intensive instruction than is possible in other courses through oral and written reports on subjects related to their other course work in English, their special interests and their areas of deficiency in literary study. Prereq: Admission to the honors program.

399 Junior Honors Seminar.
Three sem hours
A continuation of 398 Junior Honors Seminar. 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.
225 Intermediate English Composition. Three sem hours
A course for students, freshmen through seniors, who desire
further to study 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
simplified approaches to syntax will be compared with tra­
ditional 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 de­
dsigned for newspapers or magazines. Emphasis on research,
interviewing and logical presentation of informative ma­
terial. Writing assignments and analysis of writing in the
mass media.
Prereq: 215 Journalism.

307 Editing and Advising High School Publications. Three sem hours
A study of professional editing techniques with emphasis on
the 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 pro­
cedures. Students will apply theoretical principles to prob­
lems of phonological and syntactic analysis in languages other
than English.
Prereq: Junior 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
(formerly 222 Expository Writing)
The analysis and writing of various types of essay with em­
phasis on improvement of style.
Prereq: Sophomore standing.

335 Imaginative Writing. Three sem hours
(formerly 223 Narrative Writing)
The study and practice of the techniques of imaginative writ­
ing, including poetry and prose fiction. The elements of nar­
rative, including description, character development, plot
structure, and dialogue will be emphasized.
Prereq: Sophomore standing.

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.

Literature

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
depth 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
depth 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, educa­
tion and the nature of being human. Authors such as Verne,
Wells, Orwell, Huxley, Vonnegut, Burgess, Bradbury, Zama­
tian, Bellamy, Asimov, Clarke, Heinlein, Herbert and Tolkien.
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 Shakespeare. Three sem hours
An intensive study of five of the principal tragedies with
supplementary study of a Shakespeare handbook.
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.
Prereq: Two courses in literature: Speech and Dramatic Arts
121 or 124 Fundamentals of Speech.

251 The Bible as Literature. Three sem hours
Introduction to the literary study of the Bible. The Old Testa­
ment 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 Eng­
lish 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.
309 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.

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.

314 Old English. Three sem hours
The reading of representative selections of prose and poetry in the original Old English, with an introduction to Old English grammar.
Prereq: Three courses in literature.

315 The Age of Chaucer. Three sem hours
A study of The Canterbury Tales with collateral readings of other of Chaucer's works; Chaucer's contemporaries; the writers of the fifteenth century; the medieval drama.
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 Sonnets 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 from the beginning of the Century to 1660: Donne, Jonson, Bacon, minor Cavaliers and Puritan poets, Burton, Browne, Taylor and lesser prose writers.
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.

327 Milton. Three sem hours
An intensive study of the poetry and prose of John Milton.
Prereq: Three courses in literature.

328 The American Novel 1798-1920. Three sem hours
A critical reading of the American novel from C. B. Brown and J. F. Cooper through World War I. A study of the development of the novel in America from its earliest appearance to its critical maturity.
Prereq: Two courses in literature.

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 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.

332 The Twentieth Century American Novel. Three sem hours
Reading and intensive study of certain significant American novels by representative writers of our time: from Henry James to the younger contemporary novelists who portray the many faces of America.
Prereq: Two courses in literature.

333 The Twentieth Century British and European Novel. Three sem hours
A study of British and European novels significant in the thought and aesthetics of our century, by such writers as Joyce, Proust, Lawrence, Forster, Wolfe, Huxley, Kafka, Pasternak, Malraux, Camus, Silone, Murdoch, Golding, Sillitoe.
Prereq: Two courses in literature.

340 English Drama 1558-1642. Three sem hours
A comprehensive study of English Drama from the accession of Queen Elizabeth in 1558 to the closing of the theatres in 1642.
Prereq: Three courses in literature.

341 English Drama 1660-1779. Three sem hours
A study of the significant plays from the restoration of Charles II to the closing years of the 18th century.
Prereq: Three courses in literature.

344 Women in Literature. Three sem hours
A study of women and their experiences as described in literature.
Prereq: Two courses in literature.

350 Critical Evaluation of Children's Literature. Three sem hours
The study in depth in each of the genres of children's literature with intensive work in the area of the student's special interest. 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.

351 Folk Literature: Gods and Heroes. Three sem hours
A reading course in myths and ancient and medieval hero tales of Europe and the Near East with emphasis on those most frequently adapted in children's literature. Applies toward minor in children's literature only, but may be taken as a free elective.
Prereq: Two courses in literature.

352 Folk Literature: Ballads and Folk Tales. Three sem hours
A reading course in the traditional ballads and folk tales of Europe and North America with emphasis on those which appear in children's literature. Applies toward minor in children's literature only, but may be taken as a free elective.
Prereq: Two courses in literature.

401 Modern American and British Poetry. Three sem hours
A study of the chief poets of England and America since 1900.
Prereq: Three courses in literature.

403 Modern Drama. Three sem hours
A study of the chief dramatists from Ibsen to the present.
Prereq: Three courses in literature.

404 English Literature 1798-1832. Three sem hours
Prereq: Three courses in literature.
405 Victorian Poetry. Three sem hours
A study of Tennyson, Browning, the Pre-Raphaelites and the
minor poets of the Victorian period.
Prereq: Three courses in literature.

407 Victorian Prose. Three sem hours
A study of selected writing of Macaulay, Carlyle, Ruskin,
Arnold, Mill, Huxley and others.
Prereq: Three courses in literature.

408 American Literature 1608-1830. Three sem hours
A study of American writings of the colonial and early na­
tional periods from the beginnings to 1830, including back­
grounds of religious and political controversy, the neoclassi­
cal influence and the emergence of native American literature.
Prereq: Three courses in literature.

409 American Literature 1830-1890. Three sem hours
A study of the chief literary movements in America from 1830
to 1890: romanticism, transcendentalism and the rise of
realism, with emphasis on such authors as Poe, Hawthorne,
Melville, Emerson, Thoreau, Whitman, Twain, Howells,
James.
Prereq: Three courses in literature.

410 American Literature 1890 to Present. Three sem hours
A study of the forms of realism and naturalism in American
prose, poetry and drama as expressions of the growth of Amer­
ican culture; the critical controversies; the contemporary at­
ttempts to create new forms of expression.
Prereq: Three courses in literature.

420 Old English Poetry. Three sem hours
A study of Old English prosodic conventions with a close
reading of representative poems from the various types and
schools of Old English Poetry.
Prereq: 314 Old English.

430 History of Literary Criticism. Three sem hours
A study of major documents of literary criticism to enhance
the appreciation of literature through an awareness of various
criteria employed for the evaluation of literature in successive
historical periods.
Prereq: Three courses in literature.

434 English Literature in Transition 1880-1914. Three sem hours
A study of such key figures as Meredith, Hopkins, Hardy,
Pater, Yeats, Wilde, Shaw, Wells, Forster, the Edwardian
poets, Conrad, Lawrence.
Prereq: Three courses in literature.

Teaching of Literature

207 Introduction to Children's Literature. Three sem hours
(Group I or IV)
A concentrated reading course designed to impart the knowl­
dge necessary for an appreciation and understanding of
children's literature and its use in the schools. In addition to
reading the classics and the critically acclaimed works of both
fiction and non-fiction by modern writers, students will
study poetry, folklore and mythology, and examine the rela­
tionship between illustration and text. Does not count toward
major or minor in curriculums for teachers in junior and
senior high school.
Prereq: Sophomore standing.
FOREIGN LANGUAGES
AND LITERATURES

Department Head: Jean S. Bidwell
Professors: Eugene M. Gibson, Francisco Villegas
Associate Professor: Brigitte D. Muller
Assistant Professors: William J. Cline, John R. Hubbard, Ana-Maria McCoy, Benjamin W. Palmer, Raymond E. Schaub
Instructors: John C. Pisoni, Geoffrey M. Voght

ENROLLMENT RESTRICTIONS

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 will enroll in the course or courses for which they are qualified according to their high school records. However, after consultation with their adviser and with a representative of the Department of Foreign Languages, students may enroll in a lower course which the department considers better suited to their proficiency.

Foreign students will not be permitted to enter non-literature courses in their native language except by written permission of the department. This rule also applies to students born in the United States who have used a foreign language continually in their home.

DEPARTMENTAL RESIDENCE REQUIREMENTS

Majors in a foreign language must complete courses 443 Syntax and 444 Advanced Conversation, and one course in literature (above 400) in that language at Eastern Michigan University. Minors in a foreign language must complete courses 443 Syntax and 444 Advanced Conversation in that language; minors in the literature of a foreign language must complete one literature course (above 400) in that language; and minors in a foreign language and literature must complete 343 Composition, 344 Conversation and either 341 or 342 Survey of Literature at Eastern Michigan University.

LANGUAGE AND BUSINESS

Foreign language majors contemplating careers in business and government agencies are encouraged to choose one of the following minors: accounting, business computer systems, finance, management, marketing or secretarial administration.

FRENCH

Major (30 semester hours)

Required courses for a major in French language and literature:

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>341, 342 Survey of French Literature</td>
<td>6</td>
</tr>
<tr>
<td>343 French Composition and 344 French Conversation</td>
<td>5</td>
</tr>
<tr>
<td>443 French Syntax and 444 Advanced French Conversation</td>
<td>4</td>
</tr>
<tr>
<td>Literature courses beyond the 400 level</td>
<td>6</td>
</tr>
<tr>
<td>Electives in French at any level</td>
<td>9</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.

Minors (20 semester hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Required courses for a minor in French language and literature:</td>
<td></td>
</tr>
<tr>
<td>341, 342 Survey of French Literature</td>
<td>6</td>
</tr>
<tr>
<td>343 French Composition and 344 French Conversation</td>
<td>5</td>
</tr>
<tr>
<td>Electives in French, at any level</td>
<td>9</td>
</tr>
<tr>
<td>II. Required courses for a minor in French language:*</td>
<td></td>
</tr>
<tr>
<td>343 French Composition and 344 French Conversation</td>
<td>5</td>
</tr>
<tr>
<td>443 French Syntax and 444 Advanced French Conversation</td>
<td>4</td>
</tr>
<tr>
<td>Electives in French, at any level</td>
<td>11</td>
</tr>
<tr>
<td>III. Required courses for a minor in French literature:</td>
<td></td>
</tr>
<tr>
<td>341, 342 Survey of French Literature</td>
<td>6</td>
</tr>
<tr>
<td>Courses in French literature above 400</td>
<td>6</td>
</tr>
<tr>
<td>Electives in French, at any level</td>
<td>8</td>
</tr>
</tbody>
</table>

The Department of Foreign Languages offers a series of beginning courses, numbered 131, 132 and 133, in each of the three languages—French, German and Spanish. This three-semester sequence of courses is an alternative to the two-semester sequence of 121 and 122. 131 will be offered in the fall semester, 132 in the winter semester and 133 in the spring semester. A student who completes 133 thus has completed the first-year language sequence and may enter 221 and 233, just as the student who completes 122 may do.

The Foreign Languages and Literatures Department participates in the majors and minors in Area Studies (Africa.

Placement Guidelines:

a) Students with less than two years of high school foreign language enroll in 121 course.

b) Students entering with two years of high school foreign language:

1) with no lapse of time, or less than 18 months, since the last foreign language class, enroll in 122 in a designated section.

2) with a lapse of 18 months or more, enroll in 121 in a designated section.

c) Students entering with three years of high school foreign language:

1) with no lapse of time, or less than 18 months, since the last foreign language class, enroll in 221 or 233, or both.

2) with a lapse of 18 months or more, enroll in 122.

d) Students entering with four years of high school foreign language:

1) with no lapse of time, or less than 18 months, since the last foreign language class, enroll in 222 or 234, or both. The 234 course may have a designated section for this group, with one extra hour of grammar drill per week without credit.

2) with a lapse of 18 months or more, enroll in 221 or 233, or both.

e) 'Lapse of time' is measured from the last high school language class to the student's first registration at Eastern Michigan University.

* Minors in French on the elementary curriculums, see page 146.
GRADUATE STUDY

The Foreign Languages and Literatures Department offers graduate work leading to the master's degrees in French and Spanish. For descriptions of graduate courses and programs in the Foreign Languages Department please consult the Graduate Catalog.

Courses

111, 112  
Beginning French for Reading.  
Introductory course designed for students who want to learn to read French. Primarily practice in translation with some work on basic pronunciation.  
Meets three times a week. The student will spend three half-hour periods per week in the laboratory.

121, 122  
Beginning French.  
Introductory course including practice in pronunciation, conversation, reading and composition. Students are to spend one-half hour, in addition to each class period, in the laboratory as part of their preparation.

131, 132, 133  
Beginning French.  
Introductory course including practice in pronunciation, conversation, reading, and composition. Students are to spend one-half hour, in addition to each class period, in the laboratory as part of their preparation.

221, 222  
Intermediate French.  
Introductory course including practice in pronunciation, conversation, reading, and composition. Students are to spend one-half hour, in addition to each class period, in the laboratory as part of their preparation.

233, 234  
Elementary French Conversation.  
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 restrictions, page 68.)

341, 342  
Survey of French Literature.  
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. Not open to freshmen. Prereq: 222 Intermediate French or permission of the department.

343  
French Composition.  
Intended to provide a solid grounding in grammar and composition. Prereq: 234 Elementary French Conversation or permission of the department.

344  
French Conversation.  
Meets three times per week. The student will spend three half-hour periods per week in the laboratory. Prereq 234 Elementary Conversation or permission of the department.

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 permission of the department.

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 permission of the department.

433  
Studies in French Prose.  
Three sem hours  
A study of selected French prose. Specific topic (themes, authors, genres, periods) will vary depending on the instructor's field of specialization and student interest. The course may be repeated for credit with departmental permission. Prereq: 341, 342 Survey of French Literature or permission of the department.

441, 442  
Nineteenth Century French Literature.  
Three sem hours each  
A study of the chief French literary movements and representative authors of the Nineteenth Century. In French. Prereq: 341, 342 Survey of French Literature or permission of the department.

443  
French Syntax.  
Two sem hours  
An advanced course in grammar and syntax with a large amount of drill on syntactical patterns. Prereq: 343 French Composition or permission of the department.

444  
Advanced French Conversation.  
Two sem hours  
Meets three times a week. The student will be expected to spend one half hour per lesson in the laboratory, listening to recordings and making his own. The course may be repeated for credit. Prereq: 343 French Composition and 344 French Conversation or permission of the department.

451  
Readings in French.  
One sem hour  
Special projects in directed readings for majors and minors who have completed the available offerings in French, or who, because of most unusual circumstances, are granted departmental approval to substitute one or both of these for the regular courses. Prereq: 341, 342 Survey of French Literature or permission of the department.

461, 462  
Twentieth Century French Literature.  
Three sem hours each  
A study of the chief literary movements and representative authors of the twentieth century. In French. Prereq: 341, 342 Survey of French Literature or permission of the department.

471, 472  
Eighteenth Century French Literature.  
Three sem hours each  
A thorough study of the major authors and movements of the Period of the Enlightenment in French. In French. Prereq: 341, 342 Survey of French Literature or permission of the department.

481  
History of the French Language.  
Three sem hours  
A brief historical account of the development of the language
from its Latin and Vulgar Latin origins with special attention to the Old French and Middle French periods. 

Prereq: 343 French Composition. 

491, 492 Seventeenth Century French Literature. 

Three sem hours each

A study of the chief literary movements and representative authors of the Golden Age of French literature. In French. Prereq: 341, 342 Survey of French Literature or permission of the department.

GERMAN

Major (30 semester hours)

Required courses for a major in German language and literature:

- 343 German Composition and 344 German Conversation
- 341, 342 Survey of German Literature
- 443 German Syntax and 444 Advanced German Conversation
- Electives in German Literature (numbered above 400)
- Electives in German, at any level

Students majoring in German on the junior-senior high school curriculum will also take 411 Methods of Teaching Modern Language.

Minors (20 semester hours)

I. Required courses for a minor in German language and literature:

- 343 German Composition and 344 German Conversation
- 341, 342 Survey of German Literature
- Electives in German, at any level

II. Required courses for a minor in German language:

- 343 German Composition and 344 German Conversation
- 443 German Syntax and 444 Advanced German Conversation
- Electives in German, at any level

III. Required courses for a minor in German literature:

- 341, 342 Survey of German Literature
- Courses in German literature above 400
- Electives in German, at any level

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, aural-oral pattern practice and 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.

221, 222 Intermediate German. Three sem hours each

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 courses 233, 234 Elementary German Conversation 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 or 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. Not open to freshmen. Prereq: 222 Intermediate German or departmental approval.

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 Lessing, 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 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

*Minors in German on the elementary curriculums see page 147.
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: Permission of the department.

SPANISH

Major (30 semester hours)

Semester Hours

Required courses for a major in Spanish language and literature:

343 Spanish Composition and 344 Spanish Conversation .......................... 5
443 Advanced Spanish Composition and 444 Advanced Spanish Literature .................. 4
341, 342 Survey of Spanish Literature ........................................... 6
Literature courses numbered above 350 ........................................ 6
Electives in Spanish at any level ................................................ 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)

Semester Hours

I. Required courses for a minor in Spanish language and literature:
343 Spanish Composition and 344 Spanish Conversation .......................... 5
341, 342 Survey of Spanish Literature ........................................... 6
Electives in Spanish, any level ................................................ 9

II. Required courses for a minor in Spanish language:
343 Spanish Composition and 344 Spanish Conversation .......................... 5
443 Advanced Spanish Composition and 444 Advanced Spanish Conversation .................. 4
Electives in Spanish, any level ................................................ 11

III. Required courses for a minor in Spanish literature:
341, 342 Survey of Spanish Literature ........................................... 6
Electives in Spanish Literature numbered above 350 ........................................ 6
Electives in Spanish, any level ................................................ 8

*Minors in Spanish on the elementary curriculum, see page 147

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 lesson in the laboratory as part of their preparation for class.

134 Spanish for the Bilingual. Five sem hours each
A course in basic grammar and composition for students who have 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 department 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 233, 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.

341, 342 Survey of Spanish Literature.
Three sem hours each
These courses deal with the development of the 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 permission of the department.

343 Spanish Composition. Three sem hours each
A thorough review of grammatical principles and practice in composition.
Prereq: 234 Elementary Spanish Conversation or permission of the department.

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 permission of the department.

351, 352 Survey of Spanish-American Literature.
Three sem hours each
These courses deal with the major writers of Spanish-America. The first semester examines the literary works up to Modernism. The second semester is devoted to the study and discussion of literature from Modernism to the present. In Spanish.
Prereq: 222 Intermediate Spanish or permission of the department.
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 permission of the department.

444 Advanced Spanish Conversation. Two sem hours
For Spanish majors. It may be repeated for supplementary credit. The course 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 permission of the department.

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: 351, 352 Survey of Spanish-American Literature.

446 Spanish-American Theatre. Three sem hours
A study of the theatre in Spanish-America from its beginning to the present. In Spanish.
Prereq: 351, 352 Survey of Spanish-American Literature.

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 permission of the department.

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 permission of the department.

449 Romanticism. Three sem hours
A study of the major works of Hispanic Romanticism. In Spanish.
Prereq: 342 Survey of Spanish Literature.

451 Readings in Spanish. One sem hour
452 Readings in Spanish. Two 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. In Spanish.
Prereq: Permission of the department.

453 Drama of the Golden Age. Three sem hours
The course will deal with the drama of the 16th and 17th centuries. Works of the major authors will be read and discussed. In Spanish.
Prereq: 341 Survey of Spanish Literature or permission of the department.

454 Modernism in Spanish America. Two sem hours
A survey of the literary movement known as "modernismo" in the literature of Spanish-America. In Spanish.
Prereq: 351, 352 Survey of Spanish-American Literature.

455 The Generation of 1898. Two 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.

463 Don Quixote. Three sem hours
The universal qualities of both the book and its author, as well as their relation to Spanish life and literature of the period, are discussed. In Spanish.
Prereq: 341 Survey of Spanish Literature.

481 History of the 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.

Courses for Language Teachers

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.

412 Methods of Teaching Modern Language in Elementary Grades. Two sem hours
The technique and materials of teaching French, Spanish and German in the elementary grades. Not counted in Group I of the degree requirements, nor toward a major in any modern language. Should be taken before practice teaching.

Courses Given in English for Foreign Students

These courses are intended for and are sometimes required of students whose native language is not English.

110 English for Foreign Students. Three sem hours
This course is designed for foreign students whose command of English is not sufficient for them to follow regular courses at the University. The course will provide practice in reading and writing, a study of sentence structure, and experience in the organization of theme material. The course may be repeated for credit.

111 English Composition for Foreign Students. Three sem hours
This course is a continuation of CEN 110. It is designed for foreign students whose command of the English language is not sufficient for them to follow regular courses at the University. The course will provide experience in reading and writing more complex materials, a review of English grammar and extensive practice in expository writing. The course may be repeated for credit.

112 Spoken English for Foreign Students. Three sem hours
This course is designed for foreign students whose command of spoken English is inadequate. The course will provide intensive practice in the production and comprehension of spoken American English. The course may be repeated for credit.

113 Spoken English for Foreign Students. Three sem hours
This course is a continuation of CEN 112. It is designed for the foreign student whose command of spoken English is inadequate. The course will provide intensive practice in the production and comprehension of spoken American English. The course may be repeated for credit.

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. Two sem hours
The basic principles of linguistic structure as they apply the Western European languages taught in the department.
French Plays in English Translation.  

This course will cover the French theater from Corneille to modern times. It will include Molière, Racine, Hugo, Musset, Dumas fils, Brieux, Cure!, Rostand, Maeterlinck and various moderns.

French Words in English.  

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.

Mythology.  

The course is designed to acquaint the student with the general field of classical mythology and the psychology underlying it. The poet's and artist's selection and use of the classic myths from early until modern times are studied and provide an interpretation of mythological allusions in literature.

Don Quixote in English Translation.  

This course consists of a study of the most famous Spanish novel and of the background necessary for the understanding of the Age of Cervantes.

Spanish-American Literature in English Translation.  

The purpose of this course is to give students who do not read Spanish some knowledge of the literature of Mexico and the Latin-American countries and, through literature, to induce a better understanding and appreciation of the culture and problems of that area.

Etymology.  

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.

Dante in English Translation.  

This course is designed for students without a knowledge of Italian and will consist of a study of the Commedia Divina and the Vita Nuova, in English translation, with background material on the Age of Dante.

The Age of Goethe in English Translation.  

The course will consist of a study of the master-works of Goethe, in English translation, with a thorough examination of the background material and of the influence of Goethe.

GEOGRAPHY AND GEOLOGY

Department Head: Ross N. Pearson

Professors: Paul O. Buckholts, George M. Howe, James R. McDonald, Lawrence L. Ogden, Daniel S. Turner

Associate Professors: Horace A. MacMahan, Jr., C. Nicholas Raphael, Ranjit Tirtha


MAJORS AND MINORS

Geography Major (30 semester hours)

<table>
<thead>
<tr>
<th>Required courses for a major in geography:</th>
</tr>
</thead>
<tbody>
<tr>
<td>108 Earth Science ........................................ 4</td>
</tr>
<tr>
<td>110 World Regions ........................................ 3</td>
</tr>
<tr>
<td>Two of the following techniques courses ........... 6</td>
</tr>
<tr>
<td>301 Cartography ...........................................</td>
</tr>
<tr>
<td>303 Field Geography .....................................</td>
</tr>
<tr>
<td>470 Quantitative Methods in Geography and Geology</td>
</tr>
<tr>
<td>One of the following physical courses .......... 2 or 3</td>
</tr>
<tr>
<td>223 Weather and Climate ..................................</td>
</tr>
<tr>
<td>226 Oceans ..................................................</td>
</tr>
<tr>
<td>325 Geomorphology .........................................</td>
</tr>
<tr>
<td>327 Soil Science ...........................................</td>
</tr>
<tr>
<td>Two of the following systematic courses ......... 6</td>
</tr>
<tr>
<td>235 Economic Geography ...................................</td>
</tr>
<tr>
<td>332 Urban Geography ......................................</td>
</tr>
<tr>
<td>360 Cultural Geography ...................................</td>
</tr>
<tr>
<td>361 Population Geography ................................</td>
</tr>
<tr>
<td>431 Historical Geography of the U.S. ..............</td>
</tr>
<tr>
<td>432 Political Geography ...................................</td>
</tr>
<tr>
<td>One of the following regional courses ............ 3</td>
</tr>
<tr>
<td>203 Geography of Asia ......................................</td>
</tr>
<tr>
<td>205 Geography of Europe ...................................</td>
</tr>
<tr>
<td>211 Geography of the U.S. and Canada .............</td>
</tr>
<tr>
<td>321 Geography of Latin America .......................</td>
</tr>
<tr>
<td>322 Geography of Africa ...................................</td>
</tr>
<tr>
<td>323 Geography of Australia and Pacific Islands ...</td>
</tr>
<tr>
<td>324 Geography of South Asia .............................</td>
</tr>
<tr>
<td>359 Geography of the U.S.S.R. ...........................</td>
</tr>
<tr>
<td>Electives .................................................. 5 or 6</td>
</tr>
</tbody>
</table>

Geography Minor (20 semester hours)

<table>
<thead>
<tr>
<th>Required courses for a minor in geography:</th>
</tr>
</thead>
<tbody>
<tr>
<td>108 Earth Science ........................................ 4</td>
</tr>
<tr>
<td>110 World Regions ........................................ 3</td>
</tr>
<tr>
<td>Electives (only one regional course may be included) ........................................ 13</td>
</tr>
</tbody>
</table>

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, 324, 322.

See page 146 for science group major and minor for elementary teachers.

See page 48 for interdepartmental programs in conservation and page 99 for general science.

*In consultation with departmental advisers, the student will select courses in the elective group compatible with his program objectives.
Geology Major (30 semester hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required courses for a major in geology:</td>
<td></td>
</tr>
<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 Lithology</td>
<td>3</td>
</tr>
<tr>
<td>330 Sedimentation and Stratigraphy</td>
<td>3</td>
</tr>
<tr>
<td>Field Geology</td>
<td>4-8</td>
</tr>
<tr>
<td>*Electives in geology-geography</td>
<td>7-3</td>
</tr>
</tbody>
</table>

Geology Minor (20 semester hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required courses for a minor in geology:</td>
<td></td>
</tr>
<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>Petrology</td>
<td>3</td>
</tr>
<tr>
<td>Electives as approved by the department</td>
<td>5</td>
</tr>
</tbody>
</table>

Earth Science Major (30 semester hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required courses for a major in earth science:</td>
<td></td>
</tr>
<tr>
<td>108 Earth Science</td>
<td>4</td>
</tr>
<tr>
<td>223 Weather and Climate</td>
<td>3</td>
</tr>
<tr>
<td>226 The Oceans</td>
<td>2</td>
</tr>
<tr>
<td>228 Mineralogy or Rocks of Michigan</td>
<td>3-2</td>
</tr>
<tr>
<td>230 Historical Geology</td>
<td>3</td>
</tr>
<tr>
<td>303 Astronomy</td>
<td>3</td>
</tr>
<tr>
<td>325 Geomorphology</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>9-10</td>
</tr>
</tbody>
</table>

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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required courses for a minor in earth science:</td>
<td></td>
</tr>
<tr>
<td>108 Earth Science</td>
<td>4</td>
</tr>
<tr>
<td>223 Weather and Climate</td>
<td>3</td>
</tr>
<tr>
<td>226 The Oceans</td>
<td>2</td>
</tr>
<tr>
<td>229 Rocks of Michigan</td>
<td>2</td>
</tr>
<tr>
<td>303 Astronomy</td>
<td>2</td>
</tr>
<tr>
<td>305 Paleontology</td>
<td>3</td>
</tr>
<tr>
<td>Geomorphology</td>
<td>3</td>
</tr>
<tr>
<td>Two of the following courses</td>
<td>6</td>
</tr>
<tr>
<td>228 Mineralogy</td>
<td></td>
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<tr>
<td>325 Geomorphology</td>
<td></td>
</tr>
<tr>
<td>326 Structural Geology</td>
<td></td>
</tr>
<tr>
<td>329 Petrology</td>
<td></td>
</tr>
<tr>
<td>370 Glacial Geology</td>
<td></td>
</tr>
</tbody>
</table>

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

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 84 for requirements.

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

The following courses count in Group II.

102 Science for Elementary Teachers. Three sem hours. This course is designed for students who plan to teach in the elementary school. Lectures deal with basic earth science concepts and principles. The laboratory, which utilizes simple and inexpensive equipment, emphasizes the investigatory or discovery approach.

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 concepts 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 hours per week.

114 Geography of National Parks. One sem hour. A critical evaluation of the location, conservation needs and natural features—surface, geological phenomena, water, vegetation, wild life—which led to the designation of certain areas as national parks and recreational areas.

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 47.

226 The Oceans. Two sem hours. A study of the oceans, including coasts, development of currents, current patterns, salinity, temperatures, tides, sediment deposition, submarine topography, the energy balance and research techniques. 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 contour maps. Preparation of contour maps from numerical data and topographic profiles from contour maps; the correlation of landforms and landform patterns with the geologic materials and processes responsible for them. Prereq: 108 Earth Science.

*In consultation with departmental advisers, the student will select courses in the elective group compatible with his program objectives.
** Students on Bachelor of Arts curriculum may substitute 331 Paleontology and three semester hours of electives for field geology, total required for the major to remain 30 semester hours.
*** Students on the latter 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 103, 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.
225 Geomorphology. 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.
Prereq: 131 General Chemistry I.

227 Soil Science. 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.
Prereq: 108 Earth Science or 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. Not open to students who hold credit in 403 Field and Project Geography. Lecture, laboratory and discussion.

311 Map Reading and Interpretation. Three sem hours
Introduction to maps and air photos as basic tools of geographic analysis.

325 Geomorphology. Three sem hours
A detailed study of surface features and the degradational, aggradational and structural processes 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.
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.
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. Two one-hour lectures, one hour laboratory per week.
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.
Prereq: 108 Earth Science or 230 Historical Geology or 105 Biological Science or permission of the department.

355 Geologic Field Methods. One sem hour
Construction principles and use of conventional instruments in geologic surveying, note taking and preparation of illustrations and reports.
Prereq: 108 Earth Science, 228 Mineralogy, 326 Structural Geology. 329 Petrology completed or currently enrolled or 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.
Prereq: 108 Earth Science, 230 Historical Geology, 330 Sedimentation and Stratigraphy or permission of the department.

424 Climatology. Two sem hours
Examinations in 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.
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 coreing 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.
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 would deal with the occurrence and distribution of metallic, nonmetallic, petroleum and fossil deposits.
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.
Prereq: 108 Earth Science, junior standing.

449 Mineral Deposits. Three sem hours
A study of specific mineral occurrences, mines and mining districts. The world's principal deposits of metallic and nonmetallic resources and their mining techniques are emphasized. This course is designed as an application of 439 Economic Geology. Lecture three hours per week.

462 Meteorology. Two sem hours
Instruction in weather map and data analysis and 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. Lecture: one hour per week. Laboratory: two consecutive hours, one day a week.
Prereq: 223 Weather and Climate or equivalent.

466 Advanced Physical Geology. Three sem hours
A course for the geology major or professionally oriented earth scientist or geographer. A detailed study of the classical articles on all aspects of physical geologic processes and products.
Prereq: 108 Earth Science, 228 Mineralogy, 229 Rocks of Michigan or 329 Petrology, 230 Historical Geology, 330 Sedimentation and Stratigraphy.

470 Quantitative Methods in Geography and Geology. Two sem hours
An introduction to current techniques and methods applicable to geographic and geologic problems. 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 (Syn- graphic Mapping System) and including other current mapping programs such as CMAP, GRID, RGRID, CONTUR, and MAPL. Basic principles of coordinate location, data representation, matrix interpolation, contouring and line plotting.
Prereq: A course in computer programming (Fortran) or cartography is recommended.

480 Special Topics in Earth Science. 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.

481 Special Topics in Geography. 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.

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.

GEOGRAPHY COURSES
IN SOCIAL SCIENCE

The following courses count in Group III.

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.

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 included in the evaluation, production and distribution of goods and services.

312 Geography of Canada. Two sem hours
A detailed regional treatment. The natural setting, the distribution of the people, the important occupations and the problems of future development in each part of Canada.
Prereq: 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, occupation and problems of future development in each of several regions.
Prereq: 110 World Regions or 108 Earth Science.

324 Geography of South Asia. Three sem hours
Historical, cultural, and political forces in the geography of India, Pakistan, Bangladesh, the Himalayan kingdoms and Sri Lanka (Ceylon). Problems of peasant society, tradition and change, population pressure and economic structures.
Prereq: 203 Geography of Asia or permission of the department.

332 Urban Geography. Three sem hours
A study of geographic principles related to the 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 occupancy and migration.
Prereq: 110 World Regions or 108 Earth Science.

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.

423 Land and People in Southeast Asia. Two sem hours
A study of the diverse cultures and environments of Southeast Asia, pattern of rural and urban occupancy, and problems of national development, from Burma to the Philippines and Indonesia.
Prereq: 203 Geography of Asia or permission of the department.

425 Mid-East. Two sem hours
The geography of Egypt, Saudi Arabia, Israel, Jordan, Lebanon, Syria, Turkey, Iraq, Iran and Afghanistan. The study of the natural and human elements; their influence on the conflict and prospects of the several nations.
Prereq: 203 Geography of Asia or permission of the department.

431 Historical Geography of the United States. Three sem hours
Human sequence 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 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 Case Studies in Political Geography. Three sem hours
A regional study of the contemporary elements of political geography of selected states and nation states, emphasizing location, resources, population and level of technology.
Prereq: 110 World Regions or 108 Earth Science or permission of the department.

438 Manufacturing Geography. Three sem hours
An analysis of the spatial distribution of the world's manufacturing industries with emphasis on industrial and plant location techniques.
Prereq: 235 Economic Geography or permission of the department.

440 Geography of Agriculture. Three sem hours
An analysis of world agricultural patterns and prospects. Investigation into the interrelationships among natural environment, economic development, political decisions, and other factors in agricultural production.
Prereq: 235 Economic Geography or permission of the 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 the department.

497 Individual Problems (Honors Course). One sem hour
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.

498 Individual Problems (Honors Course). 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. Three sem hours
The techniques of teaching laboratory-centered earth science courses, emphasizing inquiry teaching and questioning techniques. Practical experience is obtained by teaching actual earth science classes. A requirement for teacher certification in earth science.
Prereq: 108 Earth Science or equivalent, and junior standing or permission of the department.
Teaching Social Studies in Elementary Schools.

Three semester 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.

HISTORY AND PHILOSOPHY

Department Head: Ira M. Wheatley


Associate Professors: George H. Cassar, Della M. Flusche, Sidney Gendin, James E. Green, H. Roger King, Walter G. Moss, Margaret L. Rossiter, Lester B. Scherer, Janice J. Terry, Dorsey E. Walker, James C. Waltz

Assistant Professors: Lee R. Boyer, W. Donald Briggs, Jeffrey A. Fabricant, Emanuel G. Fenz, Thomas H. Franks, Daryl M. Hafer, Michael W. Homel, Michael T. Jones, Howard F. Kanler, William A. Miller, Lawrence H. Prud'homme, Jiu Hwa Upshur

Instructors: Robert C. Fletcher, Wayne H. MacVey, Paul L. Szonyi

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 and should not be elected by persons on the degree only program. It 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 hours, distributed as follows:

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<thead>
<tr>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>History ..................</td>
</tr>
<tr>
<td>101 History of Western Civilization ..................</td>
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<tr>
<td>102 History of Western Civilization ..................</td>
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<tr>
<td>223 American History to 1877 ..................</td>
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<tr>
<td>224 American History 1877 to Present ..................</td>
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<tr>
<td>Economics ..................</td>
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<tr>
<td>200 The American Economy or 201 Principles of Economics I ..................</td>
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<tr>
<td>Elective ..................</td>
</tr>
<tr>
<td>Geography ..................</td>
</tr>
<tr>
<td>110 World Regions ..................</td>
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<tr>
<td>Elective ..................</td>
</tr>
<tr>
<td>Political Science ..................</td>
</tr>
<tr>
<td>112 American Government or 202 State and Local Government ..................</td>
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<tr>
<td>Elective ..................</td>
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<tr>
<td>Sociology ..................</td>
</tr>
<tr>
<td>105 Introductory Sociology ..................</td>
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<tr>
<td>Elective ..................</td>
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Students in the elementary, library science or special education curriculums should see page 146 for a social science group major or minor.

HISTORY

Major (30 semester hours)

<table>
<thead>
<tr>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>Required courses ..................</td>
</tr>
<tr>
<td>101, 102 History of Western Civilization ..................</td>
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<tr>
<td>223 American History to 1877 ..................</td>
</tr>
<tr>
<td>224 American History, 1877 to Present ..................</td>
</tr>
<tr>
<td>333 Europe since 1919 ..................</td>
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</tbody>
</table>
Restricted Electives (courses numbered 300 or above, including one course in United States history and one course in an area other than United States history) .................. 6
Electives .................................................. 9

Note: 123 Major Trends in United States History may be substituted for either 223 or 224. 201 The Comparative Study of Religion may not be used for credit on the history major.

Students majoring in history on a secondary teacher's certificate program will take in addition 481 Teaching of Social Studies.

Minor (20 semester hours) Semester Hours

Required courses:
101, 102 History of Western Civilization .......... 6
223 American History to 1877  .................... 3
224 American History, 1877 to Present ........... 3
Restricted electives (courses numbered 300 or above) ............................................. 5
Electives ..................................................... 3

Note: 123 Major Trends in United States History may be substituted for either 223 or 224. 201 The Comparative Study of Religion may not be used for credit on the history minor.

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.

Note: Students majoring or minoring in history are encouraged to take courses in the following cognate areas:

Humanities  Social Sciences
History of the Arts  Political Science
History of Literature  Economics
Foreign Language Literature  Sociology
Philosophy  Cultural Anthropology

The History and Philosophy Department participates in the majors and minors in Area Studies (Africa, Asia/Far East, Latin America, Middle East/North Africa, Soviet Union). See page 84 for requirements.

GRADUATE STUDY

The History and Philosophy Department offers graduate work leading to the Master of Arts in history or social studies. For descriptions of graduate courses and programs in the History and Philosophy Department, please consult the Graduate Catalog.

The History and Philosophy Department annually awards several half-time graduate assistantships requiring approximately 15 hours of work per week. Appointments are made on the basis of departmental needs and the applicant's academic achievement, demonstrated abilities and previous work experience. Interested persons should request application forms from the department head. Completed applications must be submitted by March 31.

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. Cultural development and institutional growth are emphasized. 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.

300 Topics in History  Three sem hours
An exploration of historical subject matter not provided in other departmental offerings. The content will change from semester to semester.

Prereq: Two selected courses in history or permission of the department.

Note: Students may count not more than six hours of this course as credit towards 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 101 History of Western Civilization.

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 towards 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.
Ancient and Medieval History

323 Greek History. Three sem hours
Ancient Greece from the Bronze Age to the Roman conquest.

324 Roman History. Three sem hours
Ancient Rome from prehistoric background through the Age of Justinian.

327 Europe in the Making, 500-1300. Three sem hours
The combination of classical, Christian and barbarian elements to form a dynamic civilization in a previously under-developed area.

403 History of the Ancient Near East. Three sem hours
A survey of the civilization of the Fertile Crescent, Asia Minor and the Nile Valley from neolithic settlements down to classical times.
Prereq: 101 History of Western Civilization.

European History

309 France to 1789. Three sem hours
A study of the main currents in early modern times with special emphasis on the impact of the Protestant Revolt and the Renaissance on French society, the rise of absolutism and the political and intellectual background of the French Revolution.

310 France since 1789. Three sem hours
An examination of the major trends in French history since the start of the Revolution. Cultural, social, economic and intellectual trends are stressed as well as political. The ways in which France has been a seedbed for new movements in Europe are particularly noted.

311 England to 1689. Three sem hours
The general history of England to the Revolution of 1688, with emphasis on its cultural and constitutional contributions to the modern world.

312 England 1689 to Present. Three sem hours
A continuation of 311 England to 1689. Deals with England in the period of imperial expansion, its industrial and social revolutions and its transition into a modern socially-minded nation.

330 Europe in the Renaissance and Reformation. Three sem hours
A survey of the political, cultural, religious and economic history of Europe from the Italian Renaissance to the Peace of Westphalia.

331 Europe from Absolutism to Revolution, 1648-1815. Three sem hours
A political, social and cultural study of Europe from the Peace of Westphalia through the Napoleonic Era. Emphasis will be placed upon the development of absolutism in France, constitutionalism in England, the Enlightenment and the French Revolution.

332 Modern Europe 1815-1919. Three sem hours
A study of the development and conflicts of the national states of Europe from the Congress of Vienna to the Treaty of Versailles.

333 Europe since 1919. Three sem hours
A history of Europe since Versailles with emphasis upon the Communist, Fascist and Nazi revolutions, their impact on the world; the origins and outbreak of the Second World War and the post-1945 era.
Prereq: Junior standing or permission of the department.

335 History of Women in Europe. Three sem hours
A study of the history of women and views of women in Western society from the eighteenth century to the present. Emphasis will be placed on the struggles, setbacks, and achievements of the women’s movements in the context of modern European history.
Prereq: 102 History of Western Civilization.

337 German History to 1815. Three sem hours
German history from the early Teutonic tribes and Holy Roman Empire to the rise of Brandenburg-Prussia and the Germanic Confederation.
Prereq: Junior standing or permission of the department.

338 German History since 1815. Three sem hours
Germany 1815 to the present. Topics considered are unification and Empire, World War I, the Weimar Republic, the rise of National Socialism, World War II and post-war Germany.
Prereq: Junior standing or permission of the department.

343 History of Russia to 1855. Three sem hours
A survey of the political, economic and cultural trends in the history of Russia from Riurik to the death of Tsar Nicholas I, with special emphasis on the growth of Tsarist absolutism.
Prereq: Junior standing or permission of the department.

344 History of Russia since 1855. Three sem hours
A survey of the political, economic and diplomatic history of Imperial Russia and the Soviet Union from the great reforms of the 1860’s to the death of Stalin. Special emphasis is on the Soviet period.
Prereq: Junior standing or permission of the department.

471 Social and Intellectual History of Nineteenth Century Europe. Three sem hours
A detailed study of the original concepts of Europe’s nineteenth century intellectuals whose works were of major influence in the nineteenth and twentieth centuries.
Prereq: Junior standing or permission of the department.

American History

123 Major Trends in United States History. Three sem hours
A selective treatment of United States history from colonial times to the present. Special emphasis will be placed on those aspects with significant impact on contemporary life in the United States.

223 American History to 1877. Three sem hours
A study of United States history from the period of exploration through the Reconstruction of the South following the Civil War.

224 American History, 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.
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.
Pre: One course in American history.

350 History of Canada. Three sem hours
A survey of the development of Canada from prehistoric 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.
Pre: 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.
Pre: 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.
Pre: 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 1870's through the 1950's 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.
Pre: 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.
Pre: Junior standing or 223 American History to 1877 or 224 American History 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.
Pre: 223 American History 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.
Pre: 223 American History to 1877 or equivalent.

382 The United States in the Early National Period. 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.
Pre: 223 American History 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.
Pre: 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.
Pre: 223 American History to 1877 or 224 American History 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.
Pre: 223 American History to 1877 or 224 American History 1877 to the Present or permission of the department.

414 Michigan in the Twentieth Century. Three sem hours
The recent political, constitutional, economic, social, and educational developments in Michigan as a background for understanding present conditions and problems.
Pre: 224 American History, 1877 to the Present or 313 Michigan History and junior standing.

425 The U.S. in the 20th Century: Prosperity, Depression and World War II. Three sem hours
Business rule and cultural ferment of the 1920's; Depression and New Deal reform; a second global conflict and the brief "one world" phase.
Pre: 224 American History 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-a-vis the Third World, the Vietnam venture and contemporary, political and social trends.
Prereq: 224 American History 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. Republic 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.

377 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.

378 Twentieth Century Africa. Three sem hours
A detailed examination of Black Africa's response to the historical experience of European colonialism, along with the evolution of those responses, forms and patterns which are applicable not only to Africa, but also to the entire non-Western world.

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.

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
Advanced study on an individual basis in areas in which the department does not offer formal courses. These courses are restricted to highly proficient juniors and seniors who are majors in the social sciences.
Prereq: Permission of the department.

PHILOSOPHY

The philosophy curriculum provides a basic knowledge of the field of philosophy. The general program supplements curricula 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 between courses in each of the topical groups.

Major (30 semester hours) Non-Teaching

<table>
<thead>
<tr>
<th>Courses</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>180 Introduction to Logic</td>
<td>3</td>
</tr>
<tr>
<td>200 Types of Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>230 History of Philosophy: Ancient and Medieval</td>
<td>3</td>
</tr>
<tr>
<td>231 History of Philosophy: Modern</td>
<td>3</td>
</tr>
<tr>
<td>340 Contemporary Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>400, 401, 402, 403 Philosophy Seminar</td>
<td>2</td>
</tr>
<tr>
<td>Electives (to be chosen from other philosophy courses)</td>
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</table>

Minor (20 semester hours) Teaching

<table>
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<tr>
<td>231 History of Philosophy: Modern</td>
<td>3</td>
</tr>
<tr>
<td>Electives (to be chosen from other philosophy courses)</td>
<td>8</td>
</tr>
</tbody>
</table>

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.
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.
Prereq: One course in philosophy or permission of the department.

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.
Prereq: One course in philosophy or permission of the department.

220 Ethics. Three sem hours
An introduction to the major problem of ethical theory through careful study of works selected from such writers as Aristotle, Kant, Mill and Nietzsche. 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.
Prereq: 180 Introduction to Logic or 200 Types of Philosophy.

260 Existentialism. Three sem hours
An examination of contemporary existentialist thought about the nature of reality and human existence as reflected in the works of such men as Marcel, Heidegger, Sartre and Camus. 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.

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.

280 Philosophical Foundations of Political Thought. Three sem hours
An examination of the philosophical bases of political ideology and theory. The course analyzes a variety of political theories, examining their component parts and discussing their basic assumptions. Examples are taken from the works of such writers as Plato, Aristotle, Hobbes, Locke, Rousseau, Mussolini, Marx and Thoreau.
Prereq: 180 Introduction to Logic or 200 Types of Philosophy.

297 Philosophy and Contemporary Issues. Three sem hours
A philosophical examination of some of the issues that are prominent in contemporary society. Several of the following topics will be studied: political obligation and civil disobedience, pacifism, justification of revolution, social justice, community, alienation, the contemporary university.
Prereq: 180 Introduction to Logic or 200 Types of Philosophy.

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 200 Types of Philosophy.

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 200 Types of Philosophy.

235 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: 231 History of Philosophy: Modern or permission of the department.

340 Contemporary Philosophy. Three sem hours
An introduction to philosophical developments since approximately 1900. The course covers movements such as pragmatism, analytic philosophy and existentialism, as reflected in the works of men like James, Dewey, Russell, Ryle, Heidegger and Sartre.
Prereq: 231 History of Philosophy: Modern or permission of the department.

410 Continental Rationalism. Three sem hours
An examination of the metaphysical views and theories of knowledge which emphasize the rational character of reality and the ability of man to acquire certain knowledge of reality through reasoning. The course deals with such major figures as Descartes, Spinoza, Leibnitz and Hegel.
Prereq: 231 History of Philosophy: Modern or permission of the department.

431 British Empiricism. Three sem hours
An examination of philosophical theories based on the claim that all knowledge is ultimately derived from sense experience. The course deals with such topics as causality, personal identity and theory of meaning as considered by writers like Hobbes, Locke, Berkeley, Hume, Mill and Russell.
Prereq: 231 History of Philosophy: Modern or permission of the department.

IV. Areas of Special Interest

310 Aesthetics. Three sem hours
A study of philosophical issues relating to works of art and other aesthetic objects. Possible topics include: the nature of aesthetic attitude, 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.

320 Contemporary Ethical Theory. Three sem hours
An examination of contemporary ethical discourse, analyses of ethical decision-making, and the distinction between normative ethics and meta-ethics.
Prereq: 220 Ethics or permission of the department.
350 Philosophy of Religion. Three sem hours
A philosophically 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.

355 Philosophy of Law. Three sem hours
An examination of the nature of law and the relationship between law and morality. Such theories as legal positivism, legal realism and natural law will be explored. Recommended for pre-law students.
Prereq: 180 Introduction to Logic or 200 Types of Philosophy.

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: Two courses in philosophy or permission of the department.

400, 401, 402, 403 Philosophy Seminar. Two sem hours
An intensive study of selected topics in philosophy. Class work consists of the analysis of philosophical texts, and is designed primarily for students majoring or minoring in philosophy. Since the subject matter changes, the course may be taken more than once for credit.
Prereq: Two courses in philosophy.

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. This 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.

470 Phenomenology. Three sem hours
An examination of the method and techniques of phenomenological description of consciousness. Topics will be drawn from such areas of philosophy as ontology, theory of knowledge and philosophy of mind. Authors studied will include Brentano, Husserl, Heidegger, Merleau-Ponty, Ricoeur and Sartre.
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.

485 Plato. Two sem hours
The intensive study of some of Plato's more significant dialogues, selected from Plato's early, middle, and late periods, e.g., The Apology, The Republic, and The Timaeus.
Prereq: Two courses in Philosophy, including 230 History of Philosophy: Ancient and Medieval, or permission of the department.

490 Aristotle. Two sem hours
The course concentrates on selected areas of Aristotelian works. It is designed to introduce philosophy majors and other students to an intensive study of important works.
Prereq: Two courses in Philosophy, including 230 History of Philosophy: Ancient and Medieval, or permission of the department.

497 Independent Study in Philosophy. One sem hour
Prereq: Permission of the department.

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.

AREA STUDIES

Adviser Chairman, Della M. Flusche

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 a major or a minor in Area Studies. The minor consists of 20 semester hours as described in the respective course lists. The major consists of 30 semester hours with the following minor requirements:

1. Africa (Minor in one of the following: anthropology, economics, geography, history, political science or sociology).
2. Asia-Far East (Minor in one of the following: anthropology, economics, geography, history, political science or sociology).
3. Latin America (Minor in one of the following: Spanish language and literature, Spanish language, Spanish literature, anthropology, economics, geography, history, political science, or sociology).
4. Middle East and North Africa (Minor in one of the following: anthropology, economics, geography, history, political science, or sociology).
5. Soviet Union (Minor in one of the following: economics, geography, history, political science, or sociology).
Area Studies Major: Africa (30 hours)

<table>
<thead>
<tr>
<th>Basic Courses</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>Economics 201, 202 Principles of Economics I and II</td>
<td>9</td>
</tr>
<tr>
<td>Geography 110 World Regions</td>
<td>6</td>
</tr>
<tr>
<td>(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.)</td>
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<table>
<thead>
<tr>
<th>Area Requirements</th>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>ANT 236 Peoples of Africa</td>
<td>3</td>
</tr>
<tr>
<td>ECO 385 Economic Development</td>
<td>3</td>
</tr>
<tr>
<td>GEO 322 Geography of Africa</td>
<td>3</td>
</tr>
<tr>
<td>HIS 377 History of Sub-Saharan Africa</td>
<td>3</td>
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<tr>
<td>PLS 372 Government and Politics of Sub-Saharan Africa</td>
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<table>
<thead>
<tr>
<th>Area Electives</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>Six hours to be chosen from the following:</td>
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<tr>
<td>ANT 135 Cultural Anthropology</td>
<td>3</td>
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<tr>
<td>ANT 336 Social and Cultural Change</td>
<td>3</td>
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<tr>
<td>ANT 339 Economic Anthropology</td>
<td>3</td>
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<tr>
<td>ART 222 African and Afro-American Art</td>
<td>3</td>
</tr>
<tr>
<td>ECO 368 Economics of Transportation</td>
<td>3</td>
</tr>
<tr>
<td>ECO 370 Comparative Economic Systems</td>
<td>3</td>
</tr>
<tr>
<td>GEO 574 Problems, Sub-Saharan Africa</td>
<td>2</td>
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<tr>
<td>HIS 342 North Africa 1798 to Present</td>
<td>3</td>
</tr>
<tr>
<td>HIS 542 Studies in 20th Century Africa</td>
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Area Studies Minor: Africa (20 hours)

<table>
<thead>
<tr>
<th>Area Requirements as listed for the major</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>Area Electives as listed for the major</td>
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Area Studies Major: Asia/Far East (30 hours)

<table>
<thead>
<tr>
<th>Basic Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>Geography 110 World Regions</td>
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<thead>
<tr>
<th>Area Requirements</th>
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<tbody>
<tr>
<td>GEO 203 Geography of Asia</td>
<td>3</td>
</tr>
<tr>
<td>*HIS 371 Far East to 1800 or *HIS 373 History of Modern China</td>
<td>3</td>
</tr>
<tr>
<td>HIS 557 Intellectual History of the Far East</td>
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<tr>
<td>PLS 374 Political Systems of the Far East</td>
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<tbody>
<tr>
<td>Ten hours to be chosen from the following:</td>
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<tr>
<td>ANT 135 Cultural Anthropology</td>
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<tr>
<td>ANT 238, 239, 241 Ethnographic Survey</td>
<td>3</td>
</tr>
<tr>
<td>ANT 336 Social and Cultural Change</td>
<td>3</td>
</tr>
<tr>
<td>ART 421 History of Oriental Art</td>
<td>2</td>
</tr>
<tr>
<td>ECO 385 Economic Development</td>
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<td>ECO 582 Economic Development of the Far East</td>
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</tr>
<tr>
<td>GEO 342 Geography of South Asia</td>
<td>3</td>
</tr>
<tr>
<td>GEO 423 Land and Peoples in Southeast Asia</td>
<td>2</td>
</tr>
<tr>
<td>HIS 301 Religions of South and East Asia</td>
<td>3</td>
</tr>
<tr>
<td>*HIS 371 Far East to 1800 or *HIS 373 History of Modern China or</td>
<td></td>
</tr>
</tbody>
</table>

Area Studies Minor: Asia/Far East (20 hours)

<table>
<thead>
<tr>
<th>Area Requirements as listed for the major</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Electives as listed for the major</td>
<td>9</td>
</tr>
</tbody>
</table>

Area Studies Major: Latin America (30 hours)

<table>
<thead>
<tr>
<th>Basic Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics 201, 202 Principles of Economics I and II</td>
<td>9</td>
</tr>
<tr>
<td>Geography 110 World Regions</td>
<td>6</td>
</tr>
<tr>
<td>(Note: History 101 and 102 History of Western Civilization, and Political Science 112 American Government to be taken as Group III requirements for graduation.)</td>
<td></td>
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</tbody>
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<table>
<thead>
<tr>
<th>Area Requirements</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>One three-hour course pertaining to Latin America from each of the following disciplines: Economics, Geography, History, Political Science, Sociology, Anthropology.</td>
<td></td>
</tr>
<tr>
<td>The five courses are to be selected from Course List I below.</td>
<td></td>
</tr>
<tr>
<td>Area Electives</td>
<td>Semester Hours</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------</td>
</tr>
<tr>
<td>The student is to complete the major by selecting courses totalling six hours from Course Lists I and/or II.</td>
<td></td>
</tr>
</tbody>
</table>

Course List I: Latin American Courses Applicable to Major Requirements and Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 233 Anthropology of Mexico</td>
<td>3</td>
</tr>
<tr>
<td>ANT 234 Peoples and Cultures of Latin America</td>
<td>3</td>
</tr>
<tr>
<td>ANT 238, 239, 241 Ethnographic Survey (when the topic pertains to Latin America)</td>
<td>3</td>
</tr>
<tr>
<td>ANT 249 Peoples and Cultures of the Caribbean</td>
<td>3</td>
</tr>
<tr>
<td>ECO 371 Latin American Economic Problems</td>
<td>3</td>
</tr>
<tr>
<td>GEO 321 Geography of Latin America</td>
<td>3</td>
</tr>
<tr>
<td>HIS 355 Latin America: Colonial Period</td>
<td>3</td>
</tr>
<tr>
<td>HIS 356 Latin America: National Period</td>
<td>3</td>
</tr>
<tr>
<td>HIS 357 History of Mexico</td>
<td>3</td>
</tr>
<tr>
<td>PLS 367 Contemporary Political Systems of Latin America</td>
<td>3</td>
</tr>
</tbody>
</table>

Area Studies Minor: Latin America (20 hours)

<table>
<thead>
<tr>
<th>Area Requirements as listed for the major</th>
<th>Semester Hours</th>
</tr>
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<tbody>
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<td>Area Electives as listed for the major</td>
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</tr>
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<thead>
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<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Courses</td>
<td>9</td>
</tr>
<tr>
<td>Economics 201, 202 Principles of Economics I and II</td>
<td>6</td>
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<td>Geography 110 World Regions</td>
<td>3</td>
</tr>
<tr>
<td>History 101 and 102 History of Western Civilization, and Political Science 112 American Government to be taken as Group III requirements for graduation.</td>
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<table>
<thead>
<tr>
<th>Area Requirements</th>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>One three-hour course pertaining to Latin America from each of the following disciplines: Economics, Geography, History, Political Science, Sociology, Anthropology.</td>
<td></td>
</tr>
<tr>
<td>The five courses are to be selected from Course List I below.</td>
<td></td>
</tr>
<tr>
<td>Area Electives</td>
<td>Semester Hours</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------</td>
</tr>
<tr>
<td>The student is to complete the major by selecting courses totalling six hours from Course Lists I and/or II.</td>
<td></td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 135 Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANT 335 Anthropology and Non-Primitive Societies</td>
<td>3</td>
</tr>
<tr>
<td>ANT 336 Social and Cultural Change</td>
<td>3</td>
</tr>
<tr>
<td>ECO 370 Comparative Economic Systems</td>
<td>3</td>
</tr>
<tr>
<td>GEO 541 South American Lands</td>
<td>2</td>
</tr>
<tr>
<td>GEO 542 Middle America and Caribbean Lands</td>
<td>2</td>
</tr>
<tr>
<td>HIS 561 Studies in Latin American History I</td>
<td>2</td>
</tr>
<tr>
<td>HIS 562 Studies in Latin American History II</td>
<td>2</td>
</tr>
<tr>
<td>PLS 541 Studies in Latin America</td>
<td>3</td>
</tr>
<tr>
<td>SPA 351 Survey of Latin American Literature</td>
<td>3</td>
</tr>
<tr>
<td>SPA 352 Survey of Latin American Literature</td>
<td>3</td>
</tr>
</tbody>
</table>

*One of these courses must be taken to fulfill area requirements. Either or both of the others may be taken as area electives.
SPA 445 Spanish-American Prose ........... 3
SPA 446 Spanish-American Theatre .......... 3
SPA 454 Modernism in Spanish America ... 2

(Note: The student who elects the Latin America Area Studies Major is strongly urged to minor in Spanish Language and Literature, Spanish Language or Spanish Literature.)

### Area Studies Minor: Latin America (20 hours)

- Area Requirements as listed for the major ........ 15
- Area Electives as listed for the major ............. 5

### Area Studies Major: Middle East and North Africa (30 hours)

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Economics 201, 202 Principles of Economics I and II</td>
</tr>
<tr>
<td>6</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.)

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>ECO 385 Economic Development</td>
</tr>
<tr>
<td></td>
<td>GEO 425 Mid-East</td>
</tr>
<tr>
<td></td>
<td>HIS 340 Middle East and North Africa to 1798 or *HIS 341 History of Middle East 1798 to Present or *HIS 342 North Africa 1798 to Present</td>
</tr>
<tr>
<td></td>
<td>PLS 371 Government and Politics of the Middle East</td>
</tr>
<tr>
<td></td>
<td>Area Electives to be chosen from the following: ANT 135 Cultural Anthropology</td>
</tr>
<tr>
<td></td>
<td>ANT 236 Peoples of Africa</td>
</tr>
<tr>
<td></td>
<td>ANT 336 Social and Cultural Change</td>
</tr>
<tr>
<td></td>
<td>ART 212 History of Ancient Art</td>
</tr>
<tr>
<td></td>
<td>ART 420 History of Primitive Art</td>
</tr>
<tr>
<td></td>
<td>ECO 585 Economic Growth and Development</td>
</tr>
<tr>
<td></td>
<td>ENG 351 Folk Literature: Gods and Heroes</td>
</tr>
<tr>
<td></td>
<td>GEO 322 Geography of Africa</td>
</tr>
<tr>
<td></td>
<td>HIS 201 Comparative Study of Religion</td>
</tr>
<tr>
<td></td>
<td>HIS 302 Near Eastern and Western Religions</td>
</tr>
<tr>
<td></td>
<td>HIS 403 History of the Ancient Near East</td>
</tr>
<tr>
<td></td>
<td>HIS 340 Middle East and North Africa to 1798 or *HIS 341 History of Middle East 1798 to Present or *HIS 342 North Africa 1798 to Present</td>
</tr>
<tr>
<td></td>
<td>HIS 507 History of Religion I: Judaism and Islam</td>
</tr>
<tr>
<td></td>
<td>HIS 543 Nationalism and Modernization in Middle East and North Africa</td>
</tr>
<tr>
<td></td>
<td>MUS 536 World Music I</td>
</tr>
<tr>
<td></td>
<td>Area Electives as listed for the major</td>
</tr>
</tbody>
</table>

### Area Studies Minor: Soviet Union (20 hours)

- Area Requirements as listed for the major ........ 15
- Area Electives as listed for the major ............. 5

### Area Studies Major: Soviet Union (30 hours)

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>Description</th>
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<td>Economics 201, 202 Principles of Economics I and II</td>
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<tr>
<td>6</td>
<td>Geography 110 World Regions</td>
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</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>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 472 The Soviet Economy</td>
</tr>
<tr>
<td>GEO 359 Geography of U.S.S.R.</td>
</tr>
<tr>
<td>HIS 344 Russia Since 1855</td>
</tr>
<tr>
<td>HIS 547 Nineteenth Century Ideological Background to the Russian Revolution</td>
</tr>
<tr>
<td>PLS 361 Government and Politics of the U.S.S.R.</td>
</tr>
</tbody>
</table>

### Area Studies Minor: Middle East and North Africa (20 hours)

- Area Requirements as listed for the major ........ 15
- Area Electives as listed for the major ............. 5

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 370 Comparative Economics Systems</td>
</tr>
<tr>
<td>GEO 559 Problems in Soviet Geography</td>
</tr>
<tr>
<td>HIS 332 Modern Europe, 1815-1919</td>
</tr>
<tr>
<td>HIS 333 Europe Since 1919</td>
</tr>
<tr>
<td>HIS 343 Russia to 1855</td>
</tr>
<tr>
<td>HIS 550 Twentieth Century Russia</td>
</tr>
<tr>
<td>PLS 362 Foreign Relations of the Soviet Union</td>
</tr>
</tbody>
</table>

*One of these courses must be taken to fulfill area requirements. Either or both of the others may be taken as area electives.*
GENERAL HUMANITIES PROGRAM

Director: William F. Shuter
Administrative Assistant: Gregory P. Reinke

Faculty:
Frederick M. Anderson, Professor of Philosophy
Barbara Carlisle, Lecturer in Art History
Jeffrey L. Duncan, Associate Professor of English
Emanuel G. Fenz, Assistant Professor of History
Thomas H. Franks, Assistant Professor of Philosophy
David J. Geherin, Associate Professor of English
Richard D. Goff, Professor of History
Daryl M. Hafter, Assistant Professor of History
James Holoka, Lecturer in Foreign Language
Paul D. McGlynn, Associate Professor of English
Lawrence R. Smith, Assistant Professor of English
Jean S. Sundquist, Associate Professor of Music
James C. Waltz, Associate Professor of History

The General Humanities Program offers an integrated introduction to the liberal arts that satisfies the University’s Basic Studies requirements in history, religion, philosophy, English language and literature, composition, art, music and drama. The program may be taken by all students, regardless of their major. (See Basic Studies Requirements, page 29.)

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.

The central Humanities office and the offices of the Humanities faculty are located in Goddard Hall. The Jones-Goddard complex is available as a common residence hall for students who wish to live there. A series of cultural and artistic events supplement the program. Sections of appropriate courses will be offered abroad for interested students.

Students are encouraged to complete the 24-hour program. For these students the sequence will be as follows:

**Freshman Year**

**Fall Semester: Humanities 101: Rome and America** 6 hours
(This course compares and contrasts the civilization of contemporary America with that of Imperial Rome.)

**Winter Semester: Two 100 level Humanities courses** 6 hours
(These courses examine historical periods important for the richness of their literature, thought and art.)

**Sophomore Year**

**One 200 level Humanities course** 4 hours
(These courses study an age of cultural transition.)

**Junior Year**

**One 300 level Humanities course** 4 hours
(These courses examine the legacies of a Western and non-Western culture.)

**Senior Year**

**One 400 level Humanities course** 4 hours
(These interdisciplinary seminars explore a contemporary problem or issue.)

Students unable to take the courses in this sequence may take the uncompleted courses at a later time.

For students taking less than the whole program, the following provisions apply:

1. Students who have completed some of their Basic Studies requirements and who wish to enter the Humanities program will be advised by the Director of the Humanities program which courses will satisfy the remaining requirements.

2. Students who wish to take only a single course in the program will be advised by the director which Basic Studies requirements it will satisfy.

3. Any course in the program may be taken as a free elective.

4. Students who wish to withdraw from the Humanities program will be advised by the Office of Academic Advising which Basic Studies requirements they still have to complete.

The Humanities program will satisfy certain of the requirements for a major or minor in English, history or philosophy.

**English Major**

The Department of English Language and Literature accepts the Humanities program as equivalent to nine, six, or three 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 major 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 101 and 102 Reading of Literature or two courses in literature are prerequisites. An English major or minor withdrawing from the Humanities program before completing the full 24 hours will not meet with the head of the Department of English, who will determine which English courses, if any, the student has still to take.

**History Major or Minor: Social Science Major**

A student who completes the 24 hours Humanities program is understood to have completed the equivalent of two 100 level courses toward the history major or minor, or the social science major.

A student who has completed less than the full 24 hours will meet with the department head, who will determine the number of Humanities program credits which may be applied toward the appropriate major or minor, and which courses must still be taken to complete the stated requirements.

**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 103, Technology and the Good Life in 19th Century America, may enroll in:

- Philosophy 240—American Philosophy
- Philosophy 270—Philosophical Issues in Literature
- Philosophy 297—Philosophy and Contemporary Issues

Students who have taken Humanities 201, From the Enlightenment to Romanticism, may enroll in:

- Philosophy 231—History of Philosophy—Modern
Philosophy 260—Existentialism

Philosophy 270—Philosophical Issues in Literature

Students wishing to apply hours completed in the Humanities program towards a philosophy major or minor should meet 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 are those offered in the year 1975-1976. 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 2000 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 James Holoka, a classicist, and David Gehren, a specialist in contemporary literature. The other section is taught by Richard Goff, an American historian, and Lawrence Smith of the Department of English.

102 Islam: The Golden Age. Three sem hours
While Europe was a fragmented society of illiterate, feudal kingdoms, the Islamic world kept alive the science, medicine, mathematics and philosophy of ancient Greece and created its own treasures in architecture, textiles, silver, poetry, jurisprudence and ceramics. This course looks at the cultural accomplishments of Syria, Arabia, Persia, Egypt, North Africa, Spain and Sicily in the medieval period and at their source, the Muslim religion. The course will include readings in translation from Islamic literature, films, music and slide presentations. It will be taught by Barbara Carlisle, an art historian, and James Waltz, a specialist in medieval Islam from the History Department.

103 Technology and the "Good Life" in 19th Century America. Three sem hours
By the end of the 19th century industrialism had triumphed as the American mode of life, but some of the most thoughtful writers of the period objected to the price of this triumph. Their questions introduce the three main issues of the course: What is the purpose of education in a technological society? Where can we find a basis for the experience of community? How can we find meaning or purpose in an impersonal world? The course will consist of readings illustrating both popular and high culture in 19th century America. The course is taught by Jeffrey Duncan, from the Department of English, and Frederick Anderson, a professor of philosophy.

104 The Splendid Centuries of Austria. Three sem hours
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, Schnitzler will be among the writers read. Extensive use will be made of record- ings and slides. The course will be taught by Jean Sundquist of the Music Department and Emanuel Fenz of the Department of History.
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 major of 30 semester hours (see below).
(2) The applied science curriculum (see page 36).

Students desiring a minor in mathematics may choose from the following alternatives:
(1) The regular minor in mathematics (see below).
(2) The special minor available to students on elementary teaching, library science and special education curriculums (see below).

The group major and group minor in general science also provide opportunities for incorporating mathematics into a regular program of study (see page 99).

Students who desire acceleration or advanced standing in the mathematics sequence should consult the mathematics adviser, Bob L. Goosy.

MAJOR AND MINORS

Major (30 semester hours)

Required Courses .................................................. 30
120, 121, 220, 122 Calculus with Analytic Geometry I, II, III and Elementary Linear Algebra ... 13
Electives from 221 or blocks A, B, C, D ................. 11-13
Electives from 400 or blocks A, B, C, D ............... 3-2
Electives from 105, 118, 137, 202 or 237 or blocks A, B, C, D ........................................... 3-2

Majors preparing to teach high school and junior high school mathematics must take course 221 and courses from at least three of the four blocks A, B, C and D.

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 221, 416, and 420 are suitable for any major and are highly recommended as preparation for graduate study. The following suggestions may serve as a general guide.

Business 137, 202, 320, 418, 436, 470, 471
Economics 137, 202, 320, 418, 470
Biology 137, 418, 470, 471
Physics 237, 320, 418, 422, 423, 425, 426, 436
Chemistry 237, 320, 418, 425
Psychology 137, 202, 418, 470, 471

All mathematics majors other than teaching mathematics majors and the double majors indicated above, must take 221 Calculus with Analytic Geometry IV and courses from at least two of the four blocks A, B, C and D. It is expected that these students normally will exceed the thirty hour minimum requirement.

Minor (20 semester hours)

Required Courses ........................................... 20
120, 121, 220, 122 Calculus with Analytic Geometry I, II, III and Elementary Linear Algebra ... 13
Electives from 221 and Math 314 and above .......... 4-5
Electives in Mathematics .................................. 3-2

Note: It is recommended that students minoring in mathematics and preparing to teach mathematics complete electives from two of the blocks A, B, C, D.

The block courses referred to above are as follows:

Block A

314 Theory of Equations
411 Modern Algebra
416 Elements of Matrices

Block B

441 College Geometry
443 Solid Analytic Geometry
446 Synthetic Projective Geometry

Block C

320 Differential Equations I
420 Advanced Calculus I
421 Advanced Calculus II
422 Differential Equations II
423 Functions of a Complex Variable
425 Mathematics for the Scientist I
426 Mathematics for the Scientist II

Adjustments will be made for transfers having credit in courses not listed in the blocks.

Minor for the Elementary Teaching Certificate (20 semester hours)

Required Courses ........................................... 20
101, 102, 140 and 301 ........................................ 12
plus either (1) 106 and 120 or (2) 110 and electives approved by the Mathematics Department ................. 8

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.

General Requirements
1. No student outside the elementary teaching 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 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.

COMPUTER SCIENCE

This program will provide for continued growth and change in the field of computer science. It consists of a 30-hour major or a 21-hour minor. The major provides for students interested primarily in information processing and the minor accommodates those in physical sciences, social sciences, behavioral sciences and others concerned with information processing applications. Either major or minor can be used as
a basis for graduate study in computer science. Further information about the program may be obtained from Robert A. Mills.

Computer Science Major (30 semester hours)

Required Courses ................................................. 21
137 or 237, 138, 239, 330, 334, 337, 338

Electives ......................................................... 9
Any two from 430, 431, 432, 434, 436, 437, 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 ....................................... 19
120, 121, 122, 220, 221 .......................................... 16

Computer Science Minor (21 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, 432, 436, 437, 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 advisor.

GRADUATE STUDY

The Mathematics Department offers graduate work leading to the master's degree in mathematics. For descriptions 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.

102 Functional Mathematics II. Three sem hours
Review and extension of the real numbers to a study of the complex numbers, elementary number theory, logic and nature of proof, basic probability and statistics and informal geometry. (Open only to prospective elementary teachers.)
Prereq: 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 less than one year of high school algebra should elect 105 College Algebra or 120 Calculus with Analytic Geometry 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 high school algebra or 104 Intermediate Algebra, and one year of plane geometry.

110 Algebra for Elementary Teachers. Three sem hours
Field properties, complex number, 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, vectors and matrices, determinants, linear programming, exponential and logarithmic functions.
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
Differentiation of algebraic, exponential and logarithmic functions; applications of differentiation; an introduction to the definite integral; probability.
Prereq: 118 Mathematical Analysis for Social Sciences I.

120 Calculus with Analytic Geometry I. Four sem hours
Differentiation of algebraic and trigonometric functions, applications, The Mean Value Theorem, definite and indefinite integrals, The Fundamental Theorem of Integral Calculus. 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 with Analytic Geometry II. Four sem hours
Applications of integration; exponential, logarithmic and hyperbolic functions; methods of integration; plane analytic geometry.
Prereq: 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, eigenvalues.
Prereq: 120 Calculus with Analytic Geometry I or equivalent.

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
137 Introduction to Computer Programming.  
(Formerly 236) Three sem hours
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 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.

202 Finite Mathematical Structures. Three sem hours
Selected topics in mathematical logic, set theory operations on statements, sets and functions, elements of probability theory, linear algebra, convex sets, linear programming and theory of games.
Prereq: Two years high school algebra or 105 College Algebra or equivalent.

220 Calculus with Analytic Geometry III. Three sem hours
Vectors and analytic geometry in space, differentiation of vector functions, partial differentiation, double integrals.
Prereq: 121 Calculus with Analytic Geometry II and 122 Elementary Linear Algebra or equivalent. (122 may be taken concurrently.)

221 Calculus with Analytic Geometry IV. Three sem hours
Multiple integrals, vector analysis, infinite series, complex functions.
Prereq: 220 Calculus with Analytic Geometry III or equivalent.

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 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 Programming of Business Information Systems.

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 with Analytic Geometry I.

314 Theory of Equations. Two sem hours
Includes the theory of equations, determinants, and related topics, such as rings and fields.
Prereq: 121 Calculus with Analytic Geometry II.

320 Differential Equations I. Three sem hours
The solutions of different types of ordinary differential equations and their applications. It is of particular value to students of the physical sciences and to those expecting to carry on graduate work in either mathematics or the physical sciences.
Prereq: 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 Assembly 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
simpler 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, multiprocessinng and real-time systems.

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 curriculums. 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: 220 Calculus with Analytic Geometry III.

403 Current Research in Elementary School Mathematics. Three sem hours
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.

411 Modern Algebra. Three sem hours
Introduction to modern algebra, logic, set theory, groups, rings and fields.
Prereq: 220 Calculus with Analytic Geometry III.

416 Elements of Matrices. Three sem hours
A review of determinants, linear dependence and vectors, elementary properties of matrices, transformations, canonical forms and various applications.
Prereq: 220 Calculus with Analytic Geometry III.

418 Applied Linear Algebra. Three sem hours
Applications of matrix algebra and determinants, linear dependence, linear programming, linear transformations in vector spaces. The emphasis will be more on applications rather than proof of the theorems.
Prereq: 121 Calculus with Analytic Geometry II and 122 Elementary Linear Algebra or permission of the department.

420 Advanced Calculus I. Three sem hours
Real numbers, elementary topology of real line, sequences, functions, limits, continuity, uniform continuity, differentiation, integration, sequences and series of functions, uniform convergence.
Prereq: 221 Calculus with Analytic Geometry IV.

421 Advanced Calculus II. Three sem hours
Vectors, functions of several variables, limit and continuity, partial differentiation, Implicit Function Theorem, line and surface integral, Green's Theorem, the Divergence Theorem, Stokes's Theorem, multiple integrals, improper integrals.
Prereq: 420 Advanced Calculus I.

422 Differential Equations II. Three sem hours
Linear differential equations with variable coefficients, series solutions of second order linear differential equations, numerical methods, non-linear differential equations and Sturm-Liouville Theory will be discussed.
Prereq: 320 Differential Equations I.

423 Elements of Functions of a Complex Variable. Three sem hours
Prereq: 221 Calculus with Analytic Geometry IV or equivalent.

425 Mathematics for the Scientist I. Three sem hours
The scientific applications of vector and tensor analysis, coordinate systems, matrices and determinants, infinite series, functions of a complex variable. Emphasis will be given to subjects of interest to the class.
Prereq: 221 Calculus with Analytic Geometry IV.

426 Mathematics for the Scientist II. Three sem hours
The scientific applications of ordinary and partial differential equations, special functions, integral transforms and subjects of interest to the class.
Prereq: 425 Mathematics for the Scientist I.

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 multiprogramming 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.

434 Sequential Machines. Three sem hours
Prereq: 432 Switching Theory.

436 Numerical Analysis I. Three sem hours
Introduces the student to the numerical side of mathematical analysis using the digital computer as a tool. Included is a thorough treatment of solutions of equations, interpolation and approximation, numeric differentiation and integration.
Prereq: 221 Calculus with Analytic Geometry IV and a computer programming course or permission of the department.

437 Numerical Analysis II. Three sem hours
Introduces the student to numerical methods for solving ordinary and partial differential equations. Experience in using the methods discussed is gained via problems whose solutions are computerized by the students.
Prereq: 221 Calculus with Analytic Geometry IV and a computer programming course or permission of the department.

College Geometry, Three semester hours. The triangle, harmonic ranges and pencils, inversion, poles and polars, orthogonal circles, the radical axis, cross ratio and the principle of duality. Highly recommended to students who intend to teach. Prereq: 220 Calculus with Analytic Geometry III.

Solid Analytic Geometry, Two semester hours. An introductory course dealing with lines, planes, surfaces, general equations of the second degree, properties of quadrics and the application of matrices. Highly recommended to students who intend to teach. Prereq: 220 Calculus with Analytic Geometry III.

Synthetic Projective Geometry, Two semester hours. Elementary study of duality, harmonic sets, perspective, projectivity, polarity and conics. Highly recommended to students who intend to teach. Prereq: 121 Calculus with Analytic Geometry II.

Introduction to Mathematical Statistics I, Three semester hours. A study of probability theory, statistical inference, empirical and theoretical frequency distributions of one variable, sampling theory, correlation and regression. Prereq: 220 Calculus with Analytic Geometry III.


Honors Course in Mathematics, Two semester 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.

Special Topics in Mathematics I, Two semester 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.

Special Topics in Mathematics II, Two semester hours. A second course of the type of 491. Prereq: 491 Special Topics in Mathematics I, undergraduate grade point average in mathematics 3.0 or above, and permission of the department.

Special Topics in Computer Science, Two semester 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.

MUSIC

Department Head: James B. Hause
Associate Professors: Armand R. Abramson, O. Blaine Ballard, Daniel R. Eller, John S. Elwell, Joseph Gurt, Emily B. Lowe, Dady N. Mehta, Alvio V. Pignotti, Hershaw O. Pyle, Jean S. Sundquist, Mary D. Teal
Assistant Professors: Carter J. Eggers, Rachel A. Harley, Rodney L. Hill, Anthony J. Iannaccone, Elaine R. Jacobsen, Sylvan S. Kalib, Mary E. Phipps, Max E. Plank, Robert G. Quayle, Mary Ida Yost
Instructors: Clifford K. Chapman, Glenda E. Kirkland, John R. Smith

The Department of Music offers curricula leading to the Bachelor of Arts, Bachelor of Music, Bachelor of Music Education, Bachelor of Science and Master of Arts degrees. The individual programs present music in the context of a broad liberal education, prepare vocal and instrumental teachers for elementary and secondary schools, provide individual and group study in all performance media, offer cultural enrichment to students in all departments and provide training necessary to qualify students for concentrated graduate studies and college teaching.

The Department of Music further offers basic training for musicians interested in professional careers as instrumentalists, singers and conductors, as composers and arrangers, music scholars and librarians, and, in collaboration with other departments, work in dance, radio, television and theatre. 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 in advance of their intended registration date to arrange these auditions and examinations. Transfer students may apply for advanced standing in music.

Auditions and examinations will be held during the 1975-76 academic year on the following days:

Fall Semester: November 11, 1975
Winter Semester: February 5, 1976
Spring: April 2, 1976

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 lessons.
Students from public schools and the community, EMU staff and families: $30.00 per semester for half-hour lessons.
$90.00 per semester for one-hour lessons.
$45.00 per semester for half-hour lessons.
MAJORS AND MINORS

Instrumental Music Education Major
The instrumental music education curriculum leads to teacher certification and a Bachelor of Music Education degree.

Fine arts group requirements are summarized as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Music Studies</td>
<td>33</td>
</tr>
<tr>
<td>Applied Music</td>
<td>20</td>
</tr>
<tr>
<td>Conducting</td>
<td>4</td>
</tr>
<tr>
<td>Ensembles</td>
<td>8</td>
</tr>
<tr>
<td>Electives</td>
<td>4</td>
</tr>
</tbody>
</table>

Total: 69 semester hours

For details of the curriculum see page 157.

Vocal Music Education Major
The vocal music education curriculum leads to teacher certification and a Bachelor of Music Education Degree.

Fine arts group requirements are summarized as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Music Studies</td>
<td>26</td>
</tr>
<tr>
<td>Applied Music</td>
<td>22</td>
</tr>
<tr>
<td>Conducting</td>
<td>4</td>
</tr>
<tr>
<td>Ensembles</td>
<td>8</td>
</tr>
<tr>
<td>Electives</td>
<td>4</td>
</tr>
</tbody>
</table>

Total: 64 semester hours

For details of the curriculum see page 157.

Music Major–Performance
The Bachelor of Music degree in performance is designed to prepare students of voice, keyboard, or orchestral instruments for a career in music performance. The curriculum is preparatory in that advanced degrees at the master's and doctoral levels are normally expected in addition to the bachelor's degree before full professional attainment as a performer or applied music teacher can be realized. For details of the curriculum see page 36.

Arts Group Major (36 semester hours)
See Curriculum, page 146, under College of Education.

Music Major [Non-teaching: 49 semester hours]
The student will complete the requirements for the Bachelor of Arts degree curriculum, page 35, 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.

Semester Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>*101, 102 Music Theory-Literature I, II</td>
<td>8</td>
</tr>
<tr>
<td>*201, 212 Music Theory-Literature III, IV</td>
<td>8</td>
</tr>
<tr>
<td>301, 302 History of Music</td>
<td>6</td>
</tr>
<tr>
<td>401, 402 Music Theory-Literature V, VI</td>
<td>4</td>
</tr>
<tr>
<td>100-300 Applied Music (Principal Instrument)</td>
<td>12</td>
</tr>
<tr>
<td>Electives (Department courses for which prerequisites are satisfied)</td>
<td>11</td>
</tr>
</tbody>
</table>

Total: 49 semester hours

Arts Group Minor (24 semester hours)
See Curriculum, page 146, under College of Education.

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.

**Music Education Minor (24 semester hours)**
Students planning admission to a 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.

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 semester 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 semester hours
Continuation of Music Theory-Literature I above.
Prereq: 101 Music Theory-Literature I or examination. For music majors and minors.

106 Introduction to the Performing Arts. Three semester hours
The arts of dance, theatre and music are studied both individually and collectively with the objective of determining their respective elements and of arriving at a better understanding and appreciation of the great works of art in the three fields. The place of these arts in our present day environment and their contribution to a richer life receive special emphasis.
Attendance required at specified on-campus performances (Music, Physical Education, Speech and Dramatic Arts Departments).
Prereq: Non-music majors only.

107 Music Appreciation. Two semester 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.

**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. This minor not available in Junior-Senior instrumental.**
Music Education

104 Elements of Music. 
Four 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.

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 offering. 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.

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.

280 Elementary Music Education. Three sem hours
A study of materials and teaching techniques in relation to the purposes, characteristics, and needs of children in the elementary grades. Non-majors and minors 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, oral 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 A31 Voice or completion of A04/Voice 251 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 and minors only. Completion of 254 Functional Piano A31 Voice or completion of A04/Voice 251 Piano; completion of 202 Music Theory-Literature IV: corequisite 326 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 standing. Open only to instrumental music education majors.

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.

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.

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 18.)

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 performed music. 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 their 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:

- Harp
- Guitar*
- Percussion
- Flute
- Oboe
- Bassoon
- Clarinet
- Saxophone
- Trumpet
- Cornet
- Trombone
- Euphonium
- French Horn
- Tuba

Principle 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 or music minor curriculums

11-22 level

Lower level work. Credit: Two-four hours per semester for music majors. May be repeated for credit.

300 31-62 level

Upper level work. Credit: Two-four hours per semester for music majors. May be repeated for credit.

The Bachelor of Music Education degree requires 16 semester hours of work on the principal applied music instrument, to be earned through the 100 and 300 series. Eight of the sixteen hours must be completed in upper level studies (300 series). Students are admitted to the 100 series level at different degrees of competency, therefore some students will require more time to achieve the proficiency needed for admission to the 300 series level. Permission to move to 300 series level may be given by the faculty jury with the permission of the teacher. Instrumental music education majors enrolled in applied music will be formed into appropriate small ensembles at the discretion of the applied teacher. The total number of hours spent each week in lessons and small ensembles will be limited to the number of credit hours given.

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 01-12 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 accomplishment experience, keyboard harmony, improvisation, piano literature and techniques.

Prereq: 253 Functional Piano or its equivalent.

**255 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 in 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 two hours activity credit.

**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.

*Any break in the continuity of Functional Piano courses will require an audition before resumption of study.
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
Performance class dealing with the elements of jazz arrangement, improvisation, and ensemble techniques with special emphasis on its function in Music Education.
Prereq: Permission of the department.

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.

PHYSICS AND ASTRONOMY

Department Head: Robert Silver
Professors: James M. Barnes, Charles B. Breedlove, Walter L. Gessert, Fred T. Johnson, Adolph P. Loeb, Karl A. Parsons
Associate Professors: Jean R. Moore, James C. Porter, Richard F. Roth, Clinton E. Thomas
Assistant Professor: Jon K. Wooley
Instructor: P. Daniel Troche

PHYSICS

Physics Research "R" Major

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 and 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.

Required courses for the "R" major in physics (36 semester hours):

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>223 Mechanics, Sound and Heat</td>
<td>5</td>
</tr>
<tr>
<td>224 Electricity and Light</td>
<td>5</td>
</tr>
<tr>
<td>430 Intermediate Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>450 Electricity and Magnetism</td>
<td>4</td>
</tr>
<tr>
<td>475 Intro to Quantum Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>Three of the following laboratory courses:</td>
<td>3-12</td>
</tr>
<tr>
<td>272 Modern Physics Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>432 Mechanics Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>442 Optics Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>452 Electrical Measurements</td>
<td>4</td>
</tr>
<tr>
<td>456 Electronics for Scientists</td>
<td>4</td>
</tr>
<tr>
<td>471 Nuclear Physics</td>
<td>4</td>
</tr>
<tr>
<td>417 Undergraduate Research or 490 Special Problems (Honors Course)</td>
<td>2</td>
</tr>
<tr>
<td>Electives in Physics</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>11-2</td>
</tr>
<tr>
<td>Total</td>
<td>36</td>
</tr>
</tbody>
</table>

Additional Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 Calculus and Analytic Geometry I</td>
<td>4</td>
</tr>
<tr>
<td>121 Calculus and Analytic Geometry II</td>
<td>4</td>
</tr>
<tr>
<td>122 Elementary Linear Algebra</td>
<td>2</td>
</tr>
<tr>
<td>220 Calculus and Analytic Geometry III</td>
<td>3</td>
</tr>
<tr>
<td>221 Calculus and Analytic Geometry IV</td>
<td>3</td>
</tr>
<tr>
<td>Two of the following five courses:</td>
<td></td>
</tr>
<tr>
<td>320 Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>423 Elements of Functions of a Complex Variable</td>
<td>3</td>
</tr>
<tr>
<td>425 Mathematics for the Scientist I</td>
<td>3</td>
</tr>
<tr>
<td>426 Mathematics for the Scientist II</td>
<td>3</td>
</tr>
<tr>
<td>436 Numerical Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

See also Additional Physics Requirements below.

Physics Synthesis "S" Major

The synthesis 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, geology or geography. A maximum of six semester hours of designated astronomy courses may be included among the electives on this major.
Required courses for the "S" major in physics (30 semester hours):

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>223 Mechanics, Sound and Heat</td>
<td>5</td>
</tr>
<tr>
<td>224 Electricity and Light</td>
<td>5</td>
</tr>
<tr>
<td>270 Introduction to Modern Physics</td>
<td>3</td>
</tr>
<tr>
<td>430 Intermediate Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>Three of the following laboratory courses</td>
<td>3-12</td>
</tr>
<tr>
<td>272 Modern Physics Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>422 Mechanics Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>452 Electrical Measurements</td>
<td>4</td>
</tr>
<tr>
<td>456 Electronics for Scientists</td>
<td>4</td>
</tr>
<tr>
<td>471 Nuclear Physics</td>
<td>4</td>
</tr>
<tr>
<td>Electives in Physics and Astronomy</td>
<td>11-2</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
</tr>
</tbody>
</table>

Additional Requirements:

- 120 Calculus and Analytic Geometry I       | 4              |
- 121 Calculus and Analytic Geometry II      | 4              |
- 220 Calculus and Analytic Geometry III     | 3              |

See also Additional Physics Requirements below.

Physics Minor

Required courses for a minor in physics (20 semester hours):

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>223 Mechanics, Sound and Heat</td>
<td>5</td>
</tr>
<tr>
<td>224 Electricity and Light</td>
<td>5</td>
</tr>
<tr>
<td>270 Introduction to Modern Physics</td>
<td>3</td>
</tr>
<tr>
<td>One of the following laboratory courses:</td>
<td>1-4</td>
</tr>
<tr>
<td>272 Modern Physics Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>432 Mechanics Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>442 Optics Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>452 Electrical Measurements</td>
<td>4</td>
</tr>
<tr>
<td>456 Electronics for Scientists</td>
<td>4</td>
</tr>
<tr>
<td>471 Nuclear Physics</td>
<td>4</td>
</tr>
<tr>
<td>Electives in Physics</td>
<td>6-3</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
</tr>
</tbody>
</table>

Additional Requirements:

- 120 Calculus and Analytic Geometry I       | 4              |
- 121 Calculus and Analytic Geometry II      | 4              |

See also Additional Physics Requirements below.

Applied Science Major (see page 36)

Additional Physics Requirements

All students who are completing a physics major (not physical science) are required to attend Physics Seminar for at least two semesters during their junior and senior years without credit. Physics Seminar meets eight times each semester.

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 minorors 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.

Physical Science Major

Combined group major in physical science (astronomy, chemistry, mathematics, physics) with required cognate minor in astronomy, chemistry or mathematics.

This major-minor combination is provided to prepare students for teaching the physical sciences at the secondary level. Students will complete 56 hours in the four areas (60 hours if the minor is in astronomy) that are so distributed as to fulfill the minimum requirements for a 20-hour minor in chemistry or mathematics, or a 24-hour minor in astronomy. A 36-hour group major must be completed from the four areas, but no course may be counted in both major and minor areas.

The following courses must be included in the 56-60 hour program:

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 Calculus and Analytic Geometry I</td>
<td>4</td>
</tr>
<tr>
<td>121 Calculus and Analytic Geometry II</td>
<td>4</td>
</tr>
<tr>
<td>131 General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>132 General Chemistry II</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>
<tr>
<td>270 Introduction to Modern Physics</td>
<td>3</td>
</tr>
<tr>
<td>304 Astronomy for Science Students</td>
<td>4</td>
</tr>
</tbody>
</table>

One of the following laboratory courses:

- 272 Modern Physics Laboratory              | 1              |
- 432 Mechanics Laboratory                    | 1              |
- 442 Optics Laboratory                       | 1              |
- 452 Electrical Measurements                 | 4              |
- 456 Electronics for Scientists              | 4              |
- 471 Nuclear Physics                         | 4              |

Electives chosen from Physics 300 and above to complete 20 hours of Physics       | 8-3            |

Required Cognate Minor

Regular minor in chemistry, mathematics or astronomy       | 20-24          |

All electives must be approved by the adviser. See also Additional Physics Requirements above.

GENERAL SCIENCE

Combined group major in general science and required cognate minor in biology, chemistry, geology, mathematics or physics.

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 one of the five areas and a 36-hour group major composed of courses from the other four areas. If planning to teach, he 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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>304 Introductory Astronomy for Science Stu-</td>
<td>4</td>
</tr>
<tr>
<td>dents</td>
<td></td>
</tr>
<tr>
<td>*105 Biological Science</td>
<td>4</td>
</tr>
<tr>
<td>224 Principles of Conservation</td>
<td>4</td>
</tr>
<tr>
<td>**131 General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>108 Earth Science</td>
<td>4</td>
</tr>
<tr>
<td>223 Weather and Climate</td>
<td>3</td>
</tr>
<tr>
<td>***105 Higher Algebra</td>
<td>3</td>
</tr>
<tr>
<td>107 Plane Trigonometry</td>
<td>2</td>
</tr>
<tr>
<td>221 Mechanics, Sound and Heat</td>
<td>4</td>
</tr>
<tr>
<td>222 Electricity and Light</td>
<td>4</td>
</tr>
</tbody>
</table>

*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.
The student who completes this program will be certified to teach general science in grades 7-12 and in addition would be certified to teach the subject of his 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. The student may elect to work toward a master's degree in either general science or the field of his minor.

Combined group minor in general science and a major in biology, chemistry, earth science, geology, mathematics or physics.

The student may 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 six courses listed below, omitting the course from the field of his major and including a sufficient number of approved electives from the list of electives below, to complete the 24-hour minor.

Semester Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>304 Introduction to Astronomy for Science Students</td>
<td>4</td>
</tr>
<tr>
<td>105 Biological Science</td>
<td>4</td>
</tr>
<tr>
<td>119 Fundamentals of Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>108 Earth Science</td>
<td>4</td>
</tr>
<tr>
<td>105 Higher Algebra</td>
<td>3</td>
</tr>
<tr>
<td>110 Physical Science I</td>
<td>4</td>
</tr>
<tr>
<td>Electives from the following:</td>
<td>4-5</td>
</tr>
<tr>
<td>207 Elements of Ecology</td>
<td>2</td>
</tr>
<tr>
<td>224 Principles of Conservation</td>
<td>4</td>
</tr>
<tr>
<td>205 Field Biology</td>
<td>4</td>
</tr>
<tr>
<td>120 Fundamentals of Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>226 The Oceans</td>
<td>2</td>
</tr>
<tr>
<td>327 Soil Science</td>
<td>2</td>
</tr>
<tr>
<td>107 Plane Trigonometry</td>
<td>2</td>
</tr>
<tr>
<td>112 Physical Science II</td>
<td>4</td>
</tr>
</tbody>
</table>

Students wishing to major in one science and yet qualify for Teaching General Science may elect the program immediately above.

Graduate Study

The Physics and Astronomy Department offers graduate work leading to the master's degrees in physics and general science. For descriptions of graduate courses and programs in the Physics and Astronomy Department, please consult the Graduate Catalog.

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 for those who are curious about the universe around them. Lectures and laboratory work show the value of the general student of the physicist's particular way of examining, describing and thinking about nature. No previous mathematics or science is required. The topics used to illustrate scientific thought and illuminate natural phenomena include: motion, mass and force, relativity, theory building, kinetic theory of heat, evidence for the existence of the atom, electromagnetic phenomena. Students in science, medicine or engineering and those who had high school physics should take physics courses 221-222 or 223-224. This course does not count toward a physics major or minor. Four lectures and one laboratory period 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.

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.

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.

210 Musical Acoustics. Two sem hours

For students with a major interest in music. The physical bases of sound production, transmission and reception will be outlined and demonstrated. Applications to topics such as intervals, temperament, acoustics of rooms and tone production in the various types of musical instruments will be considered. This course does not count on a physics major or minor.

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 with 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 Electricitiy 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 applications. Laboratory: two consecutive hours, one day per week.
Prereq: 221 Mechanics, Sound and Heat.

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
Fundamental principles of mechanics applied to solids. Equilibrium, elasticity, stress and strain, generalized Hook's Law, Tension, torsion, shear, bending deflection of beams, theory of columns and strain energy. Four lecture-recitation periods per week.
Prereq: 223 Mechanics, Sound and Heat.

230 Engineering Dynamics. Four sem hours
Prereq: 223 Mechanics, Sound and Heat: Math 121 Calculus with Analytic Geometry I and II. (121 may be taken concurrently.)

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.

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.

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 mem-
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 semiconductor 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; 221 Calculus with Analytic Geometry IV.

462 Kinetic Theory and Statistical Mechanics. Three sem hours
An introduction to the kinetic theory of gases and statistical mechanics, rigorous enough to satisfy the needs of students concentrating in physics and of those contemplating advanced study in related fields of science and engineering. The principal topics are the Maxwell-Boltzmann distribution law, entropy and probability, transport phenomena, quantum statistics, Bose-Einstein and Fermi-Dirac statistics, the connection between statistical mechanics and thermodynamics, the equation of state, the elementary electron theory of metals and statistical methods in nuclear physics.
Prereq: 224 Electricity and Light; 220 Calculus with Analytic Geometry III.

471 Nuclear Physics. Four sem hours
Radioactivity, scintillations, 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 with Analytic Geometry 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; 220 Calculus with Analytic Geometry III.

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: 221 Calculus with Analytic Geometry IV; 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

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 an "R" major in physics with a minor in either mathematics or astronomy. Electives used to fulfill the astronomy minor cannot be used to complete any other major or minor.

Semester Hours

Required courses ........................................ 24
304 Introductory Astronomy for Science Students ......................... 4
402 Advanced General Astronomy .................................. 3
403 Practical Astronomy ........................................ 4
Electives approved by the Department of Physics and Astronomy in physics, astronomy, mathematics (above 200) or chemistry .................. 13
Non-physics majors must include 223 Mechanics, Sound and Heat and 224 Electricity and Light among these electives.

Courses

303 Introduction to Astronomy. Three sem hours
An astronomy course for students of any curriculum. The purpose of the course is to acquaint the student with the general field of astronomy. Topics discussed include the history of astronomy, the solar system, nebulae, stars and stellar systems. Evening observations with telescopes and a study of constellations are an integral part of this course. This course does not count on a physics major or minor.
304 Introductory Astronomy for Science Students. Four sem hours

The aim of this course is to acquaint the student with the science of astronomy. Special attention is given to techniques and related sciences used by astronomers. Evenong laboratory sessions involving telescopic and naked eye observations are an important part of this course. Not open to students with credit in 303 Introduction to Astronomy. This course may count on an “S” physics major.

401 Celestial Mechanics. Two sem hours

A course designed for science and mathematics majors treating the kinematics and dynamics of bodies in geocentric, heliocentric and astrocentric orbit. Special attention is given to the two body problem and some consideration is given to the problem of perturbation. Course may count on an “S” physics major.


402 Advanced General Astronomy. Three sem hours

A course for science and mathematics majors treating such topics as the analysis of observational data, determination of time and position on the earth. Astronomical observations with telescopes, sextants and the EMU meridian circle are an integral part of this course. This course may count on an “S” physics major.

Prereq: 304 Introductory Astronomy for Science Students, 223 Mechanics, Sound and Heat; plus 120 and 121 Calculus with Analytic Geometry I and II or 223 Mechanics, Sound and Heat.

403 Practical Astronomy. Four sem hours

A course for science and mathematics majors treating such problems as the analysis of observational data, determination of time and position on the earth. Astronomical observations with telescopes, sextants and the EMU meridian circle are an integral part of this course. This course may count on an “S” physics major. Laboratory: three hours per week.

Prereq: 304 Introductory Astronomy for Science Students, 120 and 121 Calculus with Analytic Geometry I and II.

408, 409 Astronomy Project. Two sem hours

A project in some area of astronomy is to be done on an individual basis. Arrangements must be made with an appropriate staff member before the beginning of the semester. Laboratory: six hours per week.

Prereq: Permission of the department.

POLITICAL SCIENCE

Department Head: James S. Magee
Professors: Robert O. McWilliams, Leonas Sabaliunas, Samuel R. Solomon
Associate Professors: Thomas L. Brewer, Benjamin T. Hourani, Marjorie J. Lansing, Barnabas A. RacZ, Hisham M. Sabki
Assistant Professors: Sheldon M. Edner, Robert C. Grady, David W. Hortin, James D. Johnson, Karen E. Lindenberg, Charles M. Monsma, James W. Pfister

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 84 for requirements.

POLITICAL SCIENCE

MAJOR AND MINOR

Major (30 semester hours)

Required courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>112 American Government</td>
<td>3</td>
</tr>
</tbody>
</table>

One course in each of the following four categories:

- Political Inquiry: Theory and Methods
- 210 Comparative Political Analysis
- 310 Scope and Methods of Political Science
- 415 Classical Political Theory
- 416 Modern Political Theory
- 418 Recent Political Theory
- 422 American Political Theory

American Politics (3)  
American Political Systems | 3 |

Foreign Political Systems | 3 |

International Politics and Relations | 3 |

Minor (20 semester hours)

Electives in Political Science | 15 |

Minor (20 semester hours)

Electives in Political Science | 15 |
PUBLIC ADMINISTRATION
MAJOR AND MINOR

Major (36 semester hours) Non-teaching
Semester Hours

Required courses: .......................... .. . 27

PLS 270 Public Administration .................. 3

ECO 201 Principles of Economics I .................. 3

ECO 202 Principles of Economics II .................. 3

SOC 105 Introduction to Sociology .................. 3

MGT 386 Organization Theory .................. 3

MGT 350 Public Finance .................. 3

ACC 246 Accounting for Public Administrators .................. 3

PLS 381 Public Policy Analysis .................. 3

ORI 215 Computers in Business .................. 3

One course from each of the following three categories: .................. 9

ECO 310 Economics Statistics or
SOC 250 Elementary Social Statistics or
ORI Business Statistics I .................. 3

PLS 310 Scope and Methods of Political
Science or
SOC 404 Methods in Sociological Research .................. 3

PLS 202 State and Local Government or
PLS 216 Municipal Government or
PLS 330 Urban Politics .................. 3

The standard public administration program requires students selecting 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. Normally only public administration majors may elect to apply any of the cognate fields of concentration below to fulfill the graduation requirement for a minor.

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 384 Personnel Administration
ADS 408 Administrative Law

Concentrators in public sector management are also given the opportunity to gain some competence in one of the following areas: (a) personnel, (b) financial management, (c) information systems and (d) public relations. Students should, therefore, expect to take three courses out of one of the following groups or to work out a special program of electives with the approval of the adviser.

A. ADS 403 Labor Law
MGT 482 Wage and Salary Administration
MGT 487 Problems of Personnel Administration

MGT 484 Personnel Relations
MGT 485 Training Function in Organizations
MGT 486 Strategies for Organizational Development

B. ACC 346 Government Accounting
ACC 446 Financial Information Systems
FIN 353 Principles of Finance
FIN 355 Intermediate Financial Theory
ECO 455 Economic Efficiency in Public Sector
FIN 306 Principles of Insurance

C. ORI 316 Programming of Business Information Systems
ORI 317 Simulation and Systems Analysis
ORI 415 Design of Computer Based Information Systems
ORI 417 Administration of Computer Based Information Systems

D. MKT 369 Advertising
MKT 470 Business Research
MKT 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 obtain an understanding of the political, economic and social factors that shape urban policy. Graduates who concentrate in this field have an opportunity to 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 by all concentrators:

GEO 332 Urban Geography
ECO 432 Urban Economics
HIS 362 American Urban Community
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 Political Parties and Pressure 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 406 Criminology
SOC 311 Social Gerontology

C. SOC 407 Criminal Justice in Modern Society
SOC 212 Social Welfare

D. SOC 306 Urban Community
ECO 432 Urban Economics

GEO 332 Urban Geography

HIS 362 American 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 358 Parties, Elections and Interest Groups
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 445 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 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, maps 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. The six courses listed below are required of all concentrators in urban and regional planning:

GEO 301 Cartography
GEO 303 Field Geography
GEO 313 Geography of Michigan
GEO 470 Quantitative Methods in Geography and Geology
GEO 475 Computer Mapping
GEO 505 Aerial Photograph Interpretation and Remote Sensing

Concentrators in urban and regional planning should expect to take two of the following courses:

GEO 332 Urban Geography
SOC 306 The Urban Community
HIS 362 American Urban History
ECO 432 Urban Economics

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 matter as PLS 112 American Government but will utilize advanced materials and stress individual research projects. Satisfies the political science requirement of all curriculums.

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.

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.

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.

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 philosophical 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.

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.
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.

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 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.

373 Governments and Politics of South and Southeast Asia. Three sem hours
An introduction to the political systems of India, Pakistan, Burma, Thailand, Vietnam, Indonesia and the Philippines. Emphasis will be given to the connection between society and politics and to national and regional development.
Prereq: 112 American Government.

374 Political Systems of the Far East. Three sem hours
A study of the political systems of selected Far Eastern states including Japan, China and Korea.
Prereq: 210 Comparative Political Analysis 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.

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 The Political Imagination. Three sem hours
A discussion and analysis of political theories, institutions
and practices utilizing a storehouse of insightful and articu­
late 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 15 hours of
political science course work completed. Senior status or
permission of the department.

415 Classical Political Theory. Three sem hours
A study of political philosophy from ancient times to the
middle of the nineteenth century.
Prereq: 112 American Government or 202 State and Local
Government. Juniors and seniors only.

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 empha­
sis. 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 Intro­
duction to Public Administration or permission of the depart­
ment.

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

Department Head: Samuel Karson
Professors: Robert L. Anderson, Francis M. Canter, Monroe
P. Friedman, Donald E. Jackson, Murray Meisels, Ferdi­
nand Stern, Zakhour I. Youssef
Associate Professors: Dennis J. Delprato, Judith E. Gallatin,
Peter A. Holmes, Stuart A. Karabenick, Richard M. Lerner,
Joan M. Marshall, Jerry W. O'Dell
Assistant Professors: Michael D. Beecher, Peter L. Benson,
Gary L. Davis, Barry A. Fish, Joseph M. Fitzgerald, John
R. Knapp, Henry Orloff, Steven M. Vincent, Alida S.
Westman
Adjunct Professor: Peter T. Hountzas

MAJOR AND MINOR

Major (30 semester hours)
Semester Hours

Required courses:
101 or 102 General Psychology ................................. 3-4
205 Quantitative Methods in Psychology .................. 3
301 Experimental Psychology ................................. 4
453 History and Systems of Psychology .................. 3

Restricted electives of one each from the following
groups: .......................................................... 12

Group A—Adjustment and Personality
207 Psychology of Adjustment ................................. 3
360 Abnormal Psychology ........................................ 3
451 Dynamics of Personality ................................. 3

Group B—Biological
357 Sensation and Perception ................................. 3
457 Physiological Psychology ................................. 3
458 Comparative Psychology ................................. 3

Group C—Modification of Behavior
304 Learning .................................................... 3
356 Motivation .................................................... 3

Group D—Developmental
321 Child Psychology ............................................ 3
322 Psychology of Adolescence ................................. 3

Electives by advisement ........................................... 5-4

Minor (20 semester hours)
Semester Hours

101 or 102 General Psychology ................................. 3-4
Electives in psychology ........................................... 17-16

(as approved by psychology adviser)

GRADUATE STUDY

The Psychology Department offers graduate work leading
to the master’s degree in psychology and the specialist’s de­
gree 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
Introduction to methods, principles and theories evolving
from the scientific analysis of behavior. Not open to students
who have 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 demon­
strations and experiments illustrating selected concepts. Not open to students who have credit in 101 General Psychology.
Lecture: three hours per week. Laboratory: two hours per week.

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 Psychology 308 Social Psychology and Sociology 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 development and adjustments during adolescence.
Prereq: 101 or 102 General Psychology.

323 Psychology of Human Aging.
Three sem hours
An attempt to place the aging individual in the context of his/her 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 standing.

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 standing.

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 standing.

356 Motivation.
Three sem hours
Review and analysis of research and theories 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.

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 standing.

365 Behavior Modification.
Three sem hours
Examines the application of experimentally derived knowledge about the acquisition and maintenance of behavior to the area of therapeutic attempts to change behavior. Particular emphasis is placed upon specific therapy techniques and their applicability to specific behavior problems. Attention is also given to ethical issues and possible social applications.
Prereq: Junior standing with 12 hours in psychology or permission of the department.
370 Psychology In The Field Setting. Two sem hours
Supervised work in field settings which provide opportunities
for experiences relevant to the field of psychology, with focus
on the integration of psychological materials and methods
with supervised work experiences. One hour lecture and four
hours field work per week.
Prereq: 101 General Psychology, sophomore standing, con­
current enrollment in any clinical, developmental, personality
or social course in the department, and permission
of the department.

381 Individual Reading in Psychology. One sem hour
Supervised reading of psychological literature.
Prereq: 101 or 102 General Psychology and prior depart­
mental approval of a planned reading program.

382 Individual Reading in Psychology. Two sem hours
Supervised reading on psychological problems.
Prereq: 101 or 102 General Psychology and prior depart­
mental approval of a planned reading program.

383 Individual Reading in Psychology. Three sem hours
Supervised reading on psychological problems.
Prereq: 101 or 102 General Psychology and prior depart­
mental approval of a planned reading program.

391 Individual Research in Psychology. One sem hour
Supervised investigation of psychological problems.
Prereq: 205 Quantitative Methods in Psychology and permis­
sion of the department.

392 Individual Research in Psychology. Two sem hours
Supervised investigation of psychological problems.
Prereq: 205 Quantitative Methods in Psychology and permis­
sion of the department.

393 Individual Research in Psychology. Three sem hours
Supervised investigation of psychological problems.
Prereq: 205 Quantitative Methods in Psychology and permis­
sion 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 de­
velopment, 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, motiva­
tion, 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 stand­
ing.

453 History and Systems of Psychology. Three sem hours
Historical development of modern psychological theories,
with emphasis on contemporary systems, including functional­
ism, 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
Biological Science 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.
### MAJORS AND MINORS

#### MAJOR IN SOCIOLOGY (30 SEMESTER HOURS)

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>105 Introductory Sociology</td>
<td>3</td>
</tr>
<tr>
<td>135 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>
</tbody>
</table>

One of the following courses may be chosen:

- 306 Urban Community
- 307 Industrial Sociology
- 310 Social Stratification
- 362 Social Organization

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>Required Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>105 Introductory Sociology</td>
<td>3</td>
</tr>
<tr>
<td>Sociology courses at 300 level or above</td>
<td>8-9</td>
</tr>
</tbody>
</table>

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.

### MINOR IN ANTHROPOLOGY (30 SEMESTER HOURS)

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>135 Cultural Anthropology</td>
</tr>
</tbody>
</table>

At least one course at the 200 level (Areal Ethnography) ........................................................................ 3

At least one course at the 300 level (Topical) ........................................................................ 3

#### MINOR IN SOCIOLOGY (20-21 SEMESTER HOURS)

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>105 Introductory Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

One 200 level anthropology course ........................................................................ 3

Electives* ........................................................................ 14

*In addition to courses in cultural anthropology, a student may choose the following as part of his electives:

One sociology course at the 300 level or above

Zoology 306 Physical Anthropology

English 320 Introduction to Linguistic Science

Criminal Justice and Criminology Curriculum [see page 38]

Social Work Curriculum [see page 38]

### GRADUATE STUDY

The Sociology Department offers graduate work leading to the master's degree in sociology. For descriptions of graduate courses and programs in the Sociology Department, please consult the Graduate Catalog.

### COURSES

#### SOCIOLOGY

**105 Introductory Sociology.** Three sem hours

A number of basic sociological concepts are used to analyze selected aspects of American society in interpersonal relations, rural and urban communities, social classes and in family, educational, religious, governmental and economic institutions.

**202 Social Problems.** Three sem hours

A sociological analysis of problems facing society, the family, and the individual in contemporary American society, in connection with the organization of social behavior in selected areas of social life, such as child rearing, relations between the sexes, crime and delinquency, relations between racial and cultural sub-groups and personality disorders.

Prereq: 105 Introductory Sociology.
204 Marriage and Family. Three sem hours
Provides information pertinent to the position and significance of the family in our changing society. Information drawn from sociology, social psychology and psychology is applied to courtship and mate selection, as well as to problems of marital adjustment.
Prereq: 105 Introductory Sociology.

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.
Prereq: 105 Introductory Sociology.

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.
Prereq: 105 Introductory Sociology.

250 Elementary Social Statistics. Three sem hours
In this course the student will be trained to analyze social data. He will be introduced to the nature of empirical data, the organization of univariate data, measures of central tendency, measures of dispersion, the nature of correlation, regression in the two variable case, tests of significance and the general character of statistical inference.
Prereq: 105 Introductory Sociology; high school algebra or equivalent.

300 Current Topics in Sociology. Three sem hours
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 towards a major or minor in sociology.
Prereq: 105 Introductory 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.
Prereq: 105 Introductory Sociology.

306 The Urban Community. Three sem hours
Ecological and social organization of urban life. Special emphasis upon the metropolitan trend in the United States and the social problems created by it.
Prereq: 105 Introductory Sociology.

307 Industrial Sociology. Three sem hours
The social structure of the workplace, the work experience of the participants and the relation of both to the community and to society. Particular attention is given to the formal structure of large-scale organizations and the operation of small groups within them.
Prereq: 105 Introductory Sociology.

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 General Psychology. Credit cannot be earned in both Sociology 308 Social Psychology and Psychology 308 Social Psychology.

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.
Prereq: 105 Introductory Sociology or 135 Cultural Anthropology and 101 General Psychology.

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 subsystems.
Prereq: 105 Introductory Sociology.

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.

362 Social Organization. Three sem hours
The study of selected areas of social organization, including social classes, bureaucracy, the professions and social movements. Theories and empirical studies of stratification, power and decision-making will be considered.
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.

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 and senior standing.

406 Criminology. Three sem hours
The nature and incidence of crime, the characteristics of criminals and theories of criminal behavior.
Prereq: 105 Introductory Sociology.

407 Criminal Justice in Contemporary Society. Three sem hours
The police and courts as social institutions; the process of corrections; strategies for the prevention and control of crime.
Prereq: 406 Criminology.

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 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.

450 The Family. Three sem hours
Study of the family as a basic social institution. Examination of various types of family systems throughout the world with special emphasis on the American family.
Prereq: Junior standing and either 105 Introductory Sociology or 135 Cultural Anthropology.

451 The Sociology of Occupations and Professions. Three sem hours
Social significance of work. Stressing the process of professionalization, career selection and colleague and client relationships. Social organization of occupational groups.
Prereq: Twelve hours in sociology.

497, 498, 499 Independent Study. One, two and three sem hours each
Independent study, under the supervision of a department member, in areas for which the department does not offer a course. Normally such work is restricted to advanced proficient students.
Prereq: Permission of the department.

Anthropology

135 Introduction to Cultural Anthropology. Three sem hours
The study of man's adaptation to natural and cultural environments focusing upon primitive and non-Western societies. The basic institutions of human society such as kinship, religion, law, politics, and economics are examined in order to provide a comparative background for a better understanding of contemporary societies.

140 Introduction to Prehistoric Anthropology. Three sem hours
This course will investigate the evolution of human societies using materials from prehistoric studies, early man, and archaeological findings.

150 Introduction to Prehistoric Archeology. Three sem hours
A general survey of the field of archeology focusing upon the methodologies and analyses employed in the study of prehistoric cultures.
Prereq: 135 Cultural Anthropology.

233 Peoples and Cultures of Mexico. Three sem hours
A regional, historical and topical survey of Mexican cultures.
Prereq: 135 Cultural Anthropology.

234 Peoples and Cultures of Latin America. Three sem hours
A regional, historical and topical survey of Latin American cultures.
Prereq: 135 Cultural Anthropology.

236 Peoples of Africa. Three sem hours
A study of the social and cultural legacy of pre-colonial Black Africa and its transformation and diffusion in the modern world. Includes a survey of major ethnic groupings, social institutions—the family economy, religion, education and political structures, the impact of Islam and the West: emergent nationalism, current problems in African politics and social life, the dialogue between Black America and Black Africa.
Prereq: 135 Cultural Anthropology.

237 Indians of North America. Three sem hours
A regional, historical and topical survey of Aboriginal North American cultures.
Prereq: 135 Cultural Anthropology or permission of the department.

238 Ethnographic Survey. Three sem hours
An ethnographic survey of major culture areas of the world—e.g. the Pacific, Latin America, etc. Each semester it is taught one cultural area will be covered. Students may elect the course several times as long as different cultural areas are studied.
Prereq: 135 Cultural Anthropology.

248 Peoples and Cultures of the Pacific. Three sem hours
A regional, historical and topical survey of aboriginal Pacific cultures.
Prereq: 135 Cultural Anthropology.

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.
Prereq: 105 Introductory Sociology or 135 Cultural Anthropology and 101 General Psychology.
329 Cross-Cultural Study of Illness and Curing. Three sem hours
This course will look at the ways in which various cultures define, explain, and treat physical and psychic illnesses. 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.

330 Political Anthropology. Three sem hours
The comparative study of political systems in primitive and peasant societies, local-level politics, government and law will be examined from an anthropological perspective.
Prereq: 135 Cultural Anthropology and sophomore standing.

335 Anthropology and 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.
Prereq: 135 Cultural Anthropology or equivalent and sophomore standing.

336 Social and Cultural Change. Three sem hours
A survey of the theories and problems of change in primitive and advanced societies.
Prereq: 135 Cultural Anthropology or equivalent and sophomore standing.

338 Anthropology of Religion. Three sem hours
The anthropological study of religious belief and ritual in primitive and peasant societies.
Prereq: 135 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. ENG 320 Introduction to Linguistic Science suggested.

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 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.
Prereq: Nine hours in anthropology or permission of the department.

425 Cultural Ecology. Three sem hours
A comparative study of the patterns and processes of adaptation in primitive societies at various levels of socio-political organization.
Prereq: Three courses in anthropology and junior standing or permission of the department.

437 Kinship and Social Structure. Three sem hours
Comparative analysis of the structure and function of primitive societies with an emphasis on systems of kinship.
Prereq: Three courses in anthropology and junior standing. Not open to students who have taken former course 337 Social Anthropology.

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.

491 Individual Reading and Research in Anthropology. One sem hour

492 Individual Reading and Research in Anthropology. Two sem hours

493 Individual Reading and Research in Anthropology. Three sem hours
Directed reading and research on problems within the field of anthropology. Normally such work is restricted to advanced students.
Prereq: 135 Cultural Anthropology and permission of the department.

Social Work

(The requirements for the social work curriculum are given on page 42.)

212 Social Welfare. Three sem hours
The historical and analytical study of American welfare services as related to the economic, political and socio-cultural conditions and prevailing ideologies in significant periods of their development.
Prereq: Sophomore standing.

213 Field Observation. Two sem hours
An introduction to the various settings in which social welfare is practiced, the programs of social agencies and social welfare services. The student is familiarized with the social agencies and their operation through observational experiences and a weekly two-hour seminar.
Prereq: Sophomore standing. Must be taken concurrently with 212 Social Welfare.

314 Social Work I. Three sem hours
A study of the professional criteria of social work, the role, significance and place of the social work profession in modern society and an analysis of the culture of social work in terms of its ideologies, social values, norms, occupational roles and symbols with relationship to other helping professions.
Prereq: 212 Social Welfare, 213 Field Observation and junior standing.

315 Social Work II. Three sem hours
A continuation of 314. This course is designed to incorporate the student's previous knowledge of social welfare, the hu-
Humanities and social sciences in understanding the need for social work services, the function and components of social work, its methods and the settings within which it is practiced.


317 Community Service Experience. Two sem hours
Students are assigned to community organizations approved by the instructor for a period of eight hours per week. This will give the students an awareness and an appreciation of human need. It will introduce them to the various kinds of community social service programs and give them first hand exposure to the organizational structures they will be a part of in the advanced 410-411 Field Experience placements. A two-hour weekly seminar is part of this course. To be taken concurrently with 315.

408 Social Work III. Three sem hours
This course is designed to give the student an introduction to the social work techniques of interpersonal intervention—case work, group work, community organization and aspects of social treatment.

409 Social Work IV. Three sem hours
A continuation of 408 Social Work III.
Prereq: 408 Social Work III. Must be taken concurrently with 411 Field Experience.

410 Field Experience I. Six sem hours
The students are assigned to a specific agency for the semester for a period of four to eight 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 410 Field Experience. Must be taken concurrently with 409 Social Work IV.

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: 315 Social Work II.

422 Working with the Dependent and Neglected Child. Three sem hours
This course will provide a knowledge base of the services delivered to children and their families, as well as techniques of how to work with children and their families in four settings: the biological family, the foster family, the adoptive family, and group and institutional settings. The process and techniques of child placement will also be included.
Prereq: 315 Social Work II.

SPEECH AND DRAMATIC ARTS

Department Head: Thomas J. Murray
Professors: George P. Bird, Harry W. Bowen, James W. Gousseff, Virginia G. Koste, Parker R. Zellers
Associate Professors: Gail W. Compton, Annette Martin, Sally R. McCracken, Thelma L. McDaniel, Mitchel R. McElyea, William V. Swisher
Assistant Professors: Henry B. Aldridge, Dennis M. Beagen, Thomas J. Bruneau, Michele Capparelli, Gary L. Evans, Katherine E. Holkbeber, Willie B. Morgan, Arthur J. Yahrmatter
Instructors: George E. McCloud, Jeanette W. Myers, Kenneth W. Stevens

MAJORS AND MINORS

Speech Major (30 semester hours)
(For those on either the teaching or nonteaching curriculum)

I. Summary of Credit Requirements for Major and Minor

<table>
<thead>
<tr>
<th>MAJOR</th>
<th>MINOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>30 hours</td>
</tr>
</tbody>
</table>

II. Program Study

A. Foundation Courses
1. 121 Fundamentals of Speech .......... 2
2. 124 Fundamentals of Speech .......... 3
3. 224 Public Speaking ................ 3
4. 227 Interpersonal Communication .... 3

B. Application Courses
1. 166-466 Forensics .................. 1
2. 321 Parliamentary Procedure .......... 2
3. 350 Persuasion ........................ 3
4. 356 Argumentation and Debate ........ 3
5. 359 Small Group Communication ....... 3

C. Theory and Research Courses
1. 440 Rhetorical Theory ............... 3
2. 460 Theory of Speech Criticism ...... 3
3. 475 Research in Speech Communication .......... 3
4. 485 Theories of Speech Communication .......... 3

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
132; One of the following: 203, 310, 314; 324 and either 411 or 414 and one activity hour in interpretative reading

B. Broadcasting Concentration
140 and 141; one of the following: 240, 245, 331, 332, 333, 343, 344; and one of the following: 431, 432, 445, 446, 447
Dramatic Arts Major (30 semester hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses</td>
<td></td>
</tr>
<tr>
<td>110 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>One of the following:</td>
<td></td>
</tr>
<tr>
<td>242 Fundamentals of Acting</td>
<td>3</td>
</tr>
<tr>
<td>370 Scene Design</td>
<td></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>499 Seminar in Theatre</td>
<td>2</td>
</tr>
<tr>
<td>167, 267 Theatre Practice</td>
<td>2</td>
</tr>
<tr>
<td>Electives</td>
<td>8</td>
</tr>
</tbody>
</table>

Electives may be chosen from courses in dramatic arts (except 100, 133, 301, 502 and 503) and the following: ENGLISH 210 Shakespeare, 103 The Reading of Literature; Drama, 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>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses</td>
<td>20</td>
</tr>
<tr>
<td>110 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>

Electives may be chosen from the above courses or the following: English Drama 1558-1642, 165 English Drama 1660-1779, 403 Modern Drama; SPEECH 314 Interpretation of Drama.

Drama for the Young Minor (20 semester hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>121 Fundamentals of Speech or</td>
<td>2-3</td>
</tr>
<tr>
<td>124 Fundamentals of Speech</td>
<td></td>
</tr>
<tr>
<td>*222 The Child and Drama</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>322 Theatre for Children</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>110 Introduction to Theatre</td>
<td>3</td>
</tr>
<tr>
<td>132 Interpretive 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 or any course in dramatic literature</td>
<td>3</td>
</tr>
</tbody>
</table>

Speech and Dramatic Arts Major (30 semester hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>*121 Fundamentals of Speech or</td>
<td>2-3</td>
</tr>
<tr>
<td>124 Fundamentals of Speech</td>
<td></td>
</tr>
<tr>
<td>*140 Introduction to Broadcasting and Film or</td>
<td>3</td>
</tr>
<tr>
<td>446 Broadcasting in Society</td>
<td></td>
</tr>
<tr>
<td>*132 Interpretive Reading</td>
<td>3</td>
</tr>
<tr>
<td>*100 Introduction to Theatre</td>
<td>3</td>
</tr>
<tr>
<td>224 Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>350 Persuasion</td>
<td>3</td>
</tr>
<tr>
<td>*135 Play Production</td>
<td>3</td>
</tr>
<tr>
<td>205 Voice and Articulation</td>
<td>3</td>
</tr>
<tr>
<td>*356 Argumentation and Debate or</td>
<td>3</td>
</tr>
<tr>
<td>*359 Small Group Communication</td>
<td>3</td>
</tr>
<tr>
<td>Electives in dramatic arts</td>
<td></td>
</tr>
<tr>
<td>Electives in speech or dramatic arts</td>
<td>3-4</td>
</tr>
</tbody>
</table>

Speech and Dramatic Arts Minor (20 semester hours)

Courses starred at left, including both 359 Small Group Communication and 356 Argumentation and Debate.

Speech Minor (For those on elementary, library science and special education curriculums only)—(20 semester hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>One of the following:</td>
<td>2-3</td>
</tr>
<tr>
<td>121 Fundamentals of Speech or</td>
<td></td>
</tr>
<tr>
<td>124 Fundamentals of Speech</td>
<td></td>
</tr>
<tr>
<td>One of the following:</td>
<td>3</td>
</tr>
<tr>
<td>132 Interpretive Reading</td>
<td></td>
</tr>
<tr>
<td>224 Public Speaking</td>
<td></td>
</tr>
<tr>
<td>*359 Small Group Communication</td>
<td>3</td>
</tr>
<tr>
<td>*356 Argumentation and Debate or</td>
<td></td>
</tr>
<tr>
<td>*359 Small Group Communication</td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td></td>
</tr>
</tbody>
</table>

Electives may be chosen from the above courses or the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>165 Broadcasting (TV)</td>
<td>9-8</td>
</tr>
<tr>
<td>166 Forensics</td>
<td></td>
</tr>
<tr>
<td>167 Theatre Practice</td>
<td></td>
</tr>
<tr>
<td>168 Interpretation</td>
<td></td>
</tr>
<tr>
<td>169 Broadcasting (Radio)</td>
<td></td>
</tr>
<tr>
<td>140 Introduction to Broadcasting and Film</td>
<td></td>
</tr>
<tr>
<td>322 Theatre for Children</td>
<td></td>
</tr>
<tr>
<td>422 Independent Study in Drama for the Young</td>
<td></td>
</tr>
<tr>
<td>446 Broadcasting in Society</td>
<td></td>
</tr>
</tbody>
</table>

Radio-Television-Film Minor (20 semester hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Foundation Courses (7-8 hours)</td>
<td></td>
</tr>
<tr>
<td>121 Fundamentals of Speech or</td>
<td>2-3</td>
</tr>
<tr>
<td>124 Fundamentals of Speech</td>
<td></td>
</tr>
<tr>
<td>140 Introduction to Broadcasting and Film</td>
<td>3</td>
</tr>
<tr>
<td>141 Introduction to Radio-TV-Film Production</td>
<td></td>
</tr>
<tr>
<td>B. Production-Performance Courses (6 hours)</td>
<td></td>
</tr>
<tr>
<td>165 Broadcasting Activity-TV</td>
<td>1</td>
</tr>
<tr>
<td>169 Broadcasting Activity-Radio</td>
<td>1</td>
</tr>
<tr>
<td>240 Broadcast Announcing Techniques</td>
<td>3</td>
</tr>
<tr>
<td>331 Fundamentals of Radio Production and Direction</td>
<td>3</td>
</tr>
<tr>
<td>332 Fundamentals of Television Production and Direction</td>
<td>3</td>
</tr>
<tr>
<td>333 Fundamentals of Film Production</td>
<td>3</td>
</tr>
<tr>
<td>340 Broadcast Performance Techniques</td>
<td>3</td>
</tr>
<tr>
<td>431 Advanced RadioProduction and Direction</td>
<td>3</td>
</tr>
<tr>
<td>432 Advanced Television Production and Direc-</td>
<td>3</td>
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<td>tion</td>
<td></td>
</tr>
<tr>
<td>C. Writing and Theory Courses (3 hours)</td>
<td></td>
</tr>
<tr>
<td>245 Introduction to Film</td>
<td>3</td>
</tr>
<tr>
<td>343 Broadcast News</td>
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<td>344 Broadcast Continuity Writing</td>
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<td>445 Film Theory</td>
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<td>446 Broadcasting in Society</td>
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<td>447 Broadcast Management</td>
<td>3</td>
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<tr>
<td>D. Electives</td>
<td>3-4</td>
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</table>

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.

Literature, Language, Speech and Dramatic Arts Group Major (36 Semester hours)

See page 147.

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 Fundamentals of Speech 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

A study of basic oral communication theory, including consideration of evidence, communication models, interpersonal communication, and theory building.

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 Fundamentals of Speech 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 Fundamentals of Speech or 124 Fundamentals of Speech.

359 Small Group Communication. Three sem hours

Emphasizes the principles and practice of discussion as employed in committees, panels, symposia and forums. Students will plan and participate in discussions of contemporary problems.

Prereq: 121 Fundamentals of Speech or 124 Fundamentals of Speech.

440 Survey of Public Address. Three sem hours

An historical and critical study of some 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 student who participates 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 the 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 and 141 Introduction to Radio-TV-Film Production or permission of the department.

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.

Prereq: Two courses in literature and 121 or 124 Fundamentals of Speech.

331 Fundamentals of Radio Production and Direction. Three sem hours
The basic fundamentals of preparation, production, direction and evaluation of both dramatic and non-dramatic radio programs.

Prereq: 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 preparation, 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. Two 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 production of longer, more complex 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

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
(formerly SPH 536)
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.

165, 265, 365, 465 Broadcasting-TV. One sem hour
Students who participate in extracurricular activities may, with 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.

169, 269, 369, 469 Broadcasting-Radio. One sem hour each
Students who participate in extracurricular activities may, with 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.
Interpretation

132 Interpretive 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 Interpretive 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 Interpretive 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 Interpretive 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 Interpretive 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 Interpretive Reading or permission of the department.

SPEECH SCIENCE AND EDUCATION

102, 202, 302, 402 Voice Development.
One sem hour each
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: 121 Fundamentals of Speech or 124 Fundamentals of Speech, 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 132 Interpretative Reading, 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.
Prereq: Four courses in speech.

400 Phonetics and Dialects of Spoken English. Three sem hours
Prereq: 301 Speech Science, 205 Voice and Articulation or permission of the department.

DRAMATIC ARTS COURSES

Theatre

100 Introduction to Theatre. Three sem hours
An introduction to the arts and crafts of the theatre including the legitimate stage, television and motion picture drama. The purpose of the course is to foster appreciation of theatre through an understanding of its historical development, its forms and styles and its production techniques. Attendance required at selected EMU Theatre productions. Required of dramatic arts majors and minors.
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 reflect­
ing the black experience.

106 Introduction to Performing Arts. Three sem hours
The arts of dance, theatre and music are studied both in
dividually and collectively with the objective of determining
their respective elements and of arriving at a better under­
standing 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, con­
structing and coordinating the behind-the-scenes elements of
play production (set pieces, lighting, costuming, make-up,
sound, properties). Emphasis is on simple materials and tech­
niques 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 or permission of the depart­ment.

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 or permission of the depart­ment.

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.

322 Theatre for Children. Three sem hours
A study of the development, philosophy and techniques of
theatre for children with emphasis on dramatic literature for
children and its staging.
Prereq: One course in drama.

323 Improvisation. Three sem hours
Explorations of spontaneous dramatic playing through inten­sive exercises and drama games meant to generate greater in­
dividual freedom and self-discipline, as well as to expand re­
sources and techniques for teaching and directing. Opportunities
to lead experimental small-group sessions are available.
Prereq: 222 The Child and Drama or departmental major or
minor.

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 stage
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 theory,
switchboards and lighting instruments, color theory, prin­
ciples 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 permis­sion 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 special 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 exam­ple of adult or children's drama for the stage or the broadcast
media.
Prereq: 385 Dramatic Composition or permission of the depart­ment.

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
theatre. Open only to dramatic arts majors. Regulations gov­
erning honors courses must be followed (see page 19).

452 Theatre Management. Two sem hours
The materials and procedures of theatrical business manage­ment, including scheduling, budgeting, accounting, ticket
sales, house management, program editing and public relations.

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 stage 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 theory, 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 permission 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 special 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 example of adult or children's drama for the stage or the broadcast media. Prereq: 385 Dramatic Composition or permission of the department.

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 theatre. Open only to dramatic arts majors. Regulations governing honors courses must be followed (see page 19).

452 Theatre Management. Two sem hours The materials and procedures of theatrical business management, including scheduling, budgeting, accounting, ticket sales, house management, program editing and public relations.
496 Seminar in Theatre. Two sem hours
This course is designed to provide the student with opportunities to explore areas in theatre not covered in the regular course offerings.
Prereq: Open only to departmental seniors or by permission of the department.

167, 267, 367, 467 Theatre Practice. One sem hour each
Students who participate in extra-curricular activities may, by special permission of the department, 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.

Drama for the Young

222 The Child and Drama. Three sem hours
A study of drama experience as intrinsic in human development. An introduction to spontaneous drama games and exercises as a way of sharpening imagination, deepening interpersonal relations, and strengthening individual identity. Integration of such experience in learning and growth is emphasized.
Prereq: 207 Literature for Elementary Grades or departmental major or minor.

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 The Child and Drama 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
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.

423 Independent Study in Drama for the Young. Two 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.

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.
COLLEGE OF BUSINESS

Dean: Earl A. Roth
Assistant to the Dean: Lewis E. Profit

DEPARTMENTS
Accounting and Finance
Administrative Services and Business Education
Management
Marketing
Operations Research and Information Systems
Bureau of Business Services and Research
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 quantiative sciences approach to 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. A minimum of 48 semester hours 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 studies 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, upon approval and recommendation of the appropriate department head, to four-year degree programs in business administration and business teacher education.

GRADUATE PROGRAMS

The College of Business offers graduate work leading to the master's degrees in business administration 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.

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 on 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 be completed on campus, or at a coordinated degree-granting branch.

TRANSFER CREDIT FROM COMMUNITY AND JUNIOR COLLEGES

All 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 at Eastern Michigan University exclusive of community or junior college credit transferred. All degree requirements must be completed before the degree will be granted.

Credit for equivalent junior and senior courses (300-400 level) completed at community or junior colleges will be granted only upon satisfactory completion of the next more 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.

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 eight program areas leading to the bachelor's degree are presented.

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 related quantitative methods for business decision making. Accounting is a profession requiring exceptional communication ability and high ethical standards.

Business Computer Systems

The Business Computer Systems program encompasses the analysis, design, implementation and evaluation of systems for processing business data and providing information needed to make business decisions. Accounting is a profession requiring exceptional communication ability and high ethical standards.

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 Administration 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, insurance 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 insurance area of concentration provides necessary background for employment and advancement in the field of insurance, risk management, pension plans and government social insurance programs.

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.

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. A student planning to manage his own business, enter a large corporation which maintains its own training program, or who is uncertain of his career plans in business, may wish to select the general business area.

Management
The Department of Management prepares students for successful 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 have successful 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.

Secretarial Administration
This curriculum prepares men and women for positions as executive secretaries and office managers. A technical knowledge of office administration and secretarial skills, together with an understanding of other areas of business administration, are essential for successful careers in this field.

Students enrolled in this program complete the business administration core and the professional curriculum in secretarial administration. All students are urged to include 401 Business Internship in their study program.

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 29. This same page indicates how students may choose an alternate way of meeting eight of the required Business 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 Humanities.

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other courses specified below. These particular curriculum, major and core requirements do specify both courses and the number of hours to be completed. In some cases, courses taken to meet Basic Studies requirements may also meet curriculum requirements, as in the case of Economics 201 and 202 Principles of Economics.

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>Course Title</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>I</td>
<td>Language</td>
<td>8-9</td>
</tr>
<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>II</td>
<td>Science and Mathematics</td>
<td>17-18</td>
</tr>
<tr>
<td></td>
<td>One laboratory course from the biology, chemistry, geography or physics departments</td>
<td>4-5</td>
</tr>
<tr>
<td></td>
<td>101 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Mathematics (Select Option I or II)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>Option I</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>118 Mathematical Analysis for Social Sciences I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>119 Mathematical Analysis for Social Sciences II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Option II</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>120 Calculus with Analytic Geometry</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>122 Elementary Linear Algebra</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>365 Business Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>III</td>
<td>Social Science</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>One course in History</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>112 American Government or State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>201, 202 Principles of Economics</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Humanities</td>
<td>11-12</td>
</tr>
</tbody>
</table>

*Students having a “B” average in high school mathematics courses through trigonometry should not elect Option I.

**Students planning to pursue graduate study in business administration are encouraged to select Option II. An alternative advanced mathematics sequence may be required for students who have completed three or more years of high school mathematics with high quality achievement.
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.

One course in philosophy or religion.
One course in art, music or dramatic arts.

Group VI Practical Arts ................................ 50-51
Business Administration Core (Must be completed by all majors by end of junior year) .... 27
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
353 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 125)
Business Computer Systems ............. (see page 137)
Finance ................................... (see page 125)
General Business ......................... (see page 133)
Management ................................ (see page 132)
Marketing ................................ (see page 134)
Secretarial Administration .............. (see page 129)
Shopping Center Management ......... (see page 135)

Group VII Physical Education and Health .... 4
Physical education activity courses (eight activity hours)
Note: Two semester hours of military science may apply toward this requirement.

Free electives ................................ 22-18
Total ........................................ 124

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

Students planning to continue study in some graduate school of business are urged to complete the following courses as electives:
ECO 430 Aggregate Economics Analysis
ECO 431 Intermediate Economics Analysis
ORI 465 Business Statistics II

Typical Business Administration Program
for Freshman and Sophomore Years

All students must complete 124 semester hours to receive the Bachelor of Business Administration degree. To meet this requirement, students need to 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 outlined below for freshmen and sophomores. Areas of concentration to be completed during the junior and senior years are presented on the following pages by academic majors.

Students completing all requirements for the Bachelor of Business Administration degree will have met the major and minor requirements for graduation. No outside minor is required.

Freshman Year

English, Speech and Literature
(Foreign Language optional)
Biology, Chemistry, Physics or Geography
History
Mathematics
ACCOUNTING AND FINANCE

Department Head: Pending
Professor: W. Oscar Collins, William L. Kimball
Associate Professors: John W. Keros, Maurice E. Stark, John D. Staffels
Instructors: Dale A. Davis, James L. Murdock

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 core requirements. Students are also advised to elect ORI 465 Advanced Business Statistics. Some career choices available to accounting majors are:

Public Accounting

The primary service of a Certified Public Accountant is in the audit field. A CPA is an independent professional who gives his opinion on the fairness of financial statements prepared for investors. His opinion states whether those statements present fairly the information contained therein. In addition, the CPA also renders tax service and management advisory services to his 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.

Special Student Programs

Practitioner-in-Residence

Each semester a practicing accountant spends several days at Eastern discussing business experiences with students in both classroom settings and individual conferences, providing the student with greater career orientation and guidance.

Internship

In their junior year, students with good academic records have the opportunity to work for a public accounting firm. A public accounting internship provides education, travel, salary and exposure to a new world of professional experience.

Debates

The department sponsors intra-class debates in the upper-level accounting classes for the purpose of selecting a representative debate team to represent Eastern in a state-wide debate tournament sponsored by the Michigan Accounting Educators Association.

Major in Accounting

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

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total specialized hours required</td>
</tr>
<tr>
<td>Required</td>
</tr>
<tr>
<td>340 Intermediate Accounting</td>
</tr>
<tr>
<td>341 Intermediate Accounting</td>
</tr>
<tr>
<td>342 Managerial Cost Accounting</td>
</tr>
<tr>
<td>344 Tax Accounting</td>
</tr>
<tr>
<td>445 Auditing</td>
</tr>
<tr>
<td>Elective Courses</td>
</tr>
<tr>
<td>304 Law of Business Enterprises</td>
</tr>
<tr>
<td>343 Advanced Cost Accounting</td>
</tr>
<tr>
<td>346 Governmental Accounting</td>
</tr>
<tr>
<td>348 Practicum in Accounting</td>
</tr>
<tr>
<td>440 Advanced Accounting</td>
</tr>
<tr>
<td>441 Internship in Public Accounting</td>
</tr>
<tr>
<td>444 Advanced Tax Accounting</td>
</tr>
<tr>
<td>446 Financial Information Systems</td>
</tr>
<tr>
<td>447 Contemporary C.P.A. Problems</td>
</tr>
<tr>
<td>497, 8, 9 Directed Studies</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>
</tr>
</thead>
<tbody>
<tr>
<td>Total specialized hours required</td>
</tr>
<tr>
<td>Required</td>
</tr>
<tr>
<td>240 Principles of Accounting</td>
</tr>
<tr>
<td>241 Principles of Accounting</td>
</tr>
<tr>
<td>303 Legal Environment of Business</td>
</tr>
<tr>
<td>340 Intermediate Accounting</td>
</tr>
<tr>
<td>344 Tax Accounting</td>
</tr>
<tr>
<td>Elective Courses</td>
</tr>
<tr>
<td>215 Computers in Business</td>
</tr>
<tr>
<td>341 Intermediate Accounting</td>
</tr>
<tr>
<td>342 Managerial Cost Accounting</td>
</tr>
<tr>
<td>343 Advanced Cost Accounting</td>
</tr>
<tr>
<td>346 Governmental Accounting</td>
</tr>
<tr>
<td>444 Advanced Tax Accounting</td>
</tr>
<tr>
<td>446 Financial Information Systems</td>
</tr>
</tbody>
</table>

FINANCE

A student majoring in finance may choose from a variety of concentrations and career choices as described below. The program is designed to allow a person interested in a professional finance career to elect additional hours in accounting, economics and statistics. The finance major leads to career opportunities in the following areas:
Financial Management

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.

Investment Analysis

The investment concentration is designed for students with interests in analyzing and managing stock, bond and other investments. Preparation in this area of concentration consists of study in available investment alternatives, behavior and operation of investment markets and the determination and forecasting of investment value. These skills can be applied to careers including stock broker, investment banker, investment trust manager, financial analyst and portfolio manager.

Insurance

The study of insurance includes the identification and management of personal and business risk in the areas of property, liability, life and health. Employment goals include risk underwriter, actuary and sales representatives, for insurance companies, pension plans and government social insurance programs.

Real Estate Management

This concentration serves the career goals of students interested in the financing, sale, appraisal and development of commercial and residential real property. Course work also emphasizes 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.

Major in Finance

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

Total specialized hours required .................................................. 24

Required courses ................................................................. 12

354 Investments .............................................................. 3

355 Intermediate Financial Theory ...................................... 3

450 Problems in Financial Management ................................. 3

452 Analysis of Financial Statements ................................ 3

Concentrations (students should consult with their adviser for guidance in the areas of concentration. Courses chosen will come from the following list or from approved substitutions.)

Selected from ............................................................................ 12

342 Managerial Cost Accounting ........................................... 3

344 Tax Accounting ............................................................. 3

358 General Insurance ........................................................ 3

451 Portfolio Management ................................................... 3

453 Commercial Banking .................................................... 3

120 Calculus with Analytic Geometry I ................................. 4

301 Intermediate Macroeconomic Analysis ......................... 3

302 Intermediate Microeconomic Analysis ......................... 3

465 Business Statistics II ....................................................... 3

Minor in Finance (A non-teaching minor for non-business majors)

Non-business majors may elect to minor in finance. Students must complete 21 semester hours of credit per following program:

Semester Hours

Finance minor ........................................................................ 12

Required .................................................................

240 Principles of Accounting .............................................. 3

241 Principles of Accounting .............................................. 3

353 Principles of Finance .................................................... 3

355 Intermediate Financial Theory ...................................... 3

Elective Courses ................................................................. 9

354 Investments .............................................................. 3

450 Problems in Financial Management ................................. 3

451 Portfolio Management ................................................... 3

452 Analysis of Financial Statements ................................ 3

453 Commercial Banking ....................................................... 3

COURSES

Accounting

240 Principles of Accounting. Three sem hours

Thorough study of the accounting cycle. The course centered 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. Preparation in this area of concentration is designed for students with interests in analyzing and managing stock, bond and other investments. Preparation in this area of concentration consists of study in available investment alternatives, behavior and operation of investment markets and the determination and forecasting of investment value. These skills can be applied to careers including stock broker, investment banker, investment trust manager, financial analyst and portfolio manager.

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.

Prepr: 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 344 Tax Accounting with permission of their department head.

Prepr: 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.

Prepr: 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.

341 Manag erial Cost Accounting. Three sem hours Accounting information for use in planning objectives and in controlling operations. A framework for measuring management performance is developed through an analytic treatment of cost behavior under dynamic conditions by employing such devices as cost-volume-profit relationships, flexible budgets and standards. Prereq: 241 Principles of Accounting.

342 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: 341 Managerial Cost Accounting and 365 Business Statistics I.

343 Advanced Tax Accounting. Three sem hours Covers income tax, tax research; income and loss realization and recognition; capital gains and losses; exclusions; deductions; losses; exemptions; rates, personal tax returns. Prereq: 340 Intermediate Accounting or 452 Analysis of Financial Statements.

344 Governmental Accounting. Three sem hours Covers accounting philosophy for nonprofit organizations; principles of fund accounting; the budget process including program budgeting; institutional (college, hospitals, welfare agency) accounting; internal control; and data processing. Prereq: 241 Principles of Accounting.

345 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. One sem hour Directed full-time work experience in the accounting phase of a business organization. This course may be repeated for a maximum of three hours. Prereq: Permission of the department.


403 Internship in Public Accounting. One sem hour Carefully supervised employment in public accounting to better understand the accounting principles and procedures which are taught in the classroom. Pass-fail grading. Prereq: Permission of the department.

404 Advanced Tax Accounting. Three sem hours Covers tax law applicable to partnerships and corporations; operation, distributions, reorganization and liquidation. Prereq: 344 Tax Accounting.

405 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.

406 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.


497, 498, 499 Directed Studies. One, two and 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

353 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 118 Mathematical Analysis for Social Sciences I.


356 General Insurance. Three sem hours An introduction to the basic principles, concepts and understandings of the major types of insurance property and allied lines. Casualty, life, health and social insurance. Emphasis is given to the identification and methods of handling personal and business risks. Prereq: Junior standing or permission of the department.

357 Real Estate Principles and Practices. Three sem hours General characteristics of real estate including land economics, real estate theory and markets, financial instruments, legal aspects, organizations for financing, appraisals, risk evaluation and federal legislation. Prereq: Junior standing or permission of the department.


451 Portfolio Management. Three sem hours An advanced course for professional investment managers covering economic policy and forecasting, security valuation, technical analysis, portfolio methods and procedures. Prereq: 354 Investments or equivalent.
452 Analysis of Financial Statements. Three sem hours
Analysis and interpretation of the financial statements and
reports of various types of businesses and industries. Effect
of price-level changes is emphasized.
Prereq: 341 Intermediate Accounting or 355 Intermediate
Financial Theory.

453 Commercial Banking. Three sem hours
Practices, policies and problems of commercial bank manage-
ment and operation, capital adequacy, loan and investment
policy, liquidity and profit maximization.
Prereq: 353 Principles of Finance.

454 Real Estate Finance. Three sem hours
Procedures and methods of financing real estate including
appraisal and valuation of real estate projects. The role of
interest rates and the flow of investment capital into real
estate are examined.
Prereq: 353 Principles of Finance and 359 Real Estate Prin-
ciples and Practices.

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: 358 General Insurance or permission of the depart-
ment.

459 Property and Liability Insurance. Three sem hours
A study of the principles and practices of property and lia-
ability insurance. Primary emphasis is on developing an under-
standing of the various property and liability insurance con-
tracts and their uses. Role of risk manager in handling per-
sonal and business risk is stressed.
Prereq: 358 General Insurance or permission of the depart-
ment.

ADMINISTRATIVE SERVICES
AND
BUSINESS EDUCATION

Department Head: Robert A. Ristau
Professors: Rosemary L. DeLoach, Charles H. Duncan,
Robert l. Hislop, Russell L. Ogden, Mary F. Robek
Associate Professors: I. Normajean Anderson, Louis R. Gra-
ziano, Thomas M. Johnson, Rosetta F. Wingo
Assistant Professors: Albert W. Belskus, Gary M. Victor,
L. Graham Ward, Joan A. Yates

The Administrative Services and Business Education De-
partment offers courses in the areas of:
1. business administration
2. personal business development
3. business teacher education
4. word processing competencies
5. business law

Professional programs within this department lead to a
variety of business and teaching careers. Students earn either
the Bachelor of Business Administration or the Bachelor of
Business Education degree.

A Flexible Program Concept (FPC) is available to those stu-
dents who wish to pursue a less-than-four-year degree pro-
gram. This flexible program concept (FPC) 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 individu-
dually designed program (FPC), the student will be ready for em-
ployment in the chosen career area and will be awarded a
special Departmental Certificate of Accomplishment.

BUSINESS TEACHER EDUCATION

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 Distribu-
tive Education

Degree: Bachelor of Business Education

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

In addition to a degree, the student completing this pro-
gram 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 Edu-
cation degree.

Group I, II, III, IV and VI courses and requirements are
presented on page 153. Within the group VI courses, all stu-
dents must complete the Business Administration Core and
meet the requirements of either the Office Education or the
Distributive Education concentration.

Areas of Concentration: Choose Office Education or Dis-
tributive Education
### Office Education

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Required courses</strong></td>
<td>25</td>
</tr>
<tr>
<td>*222 Office Services</td>
<td>12</td>
</tr>
<tr>
<td>224 Calculator Applications: Business and Personal</td>
<td>4</td>
</tr>
<tr>
<td>363 Principles of Retailing</td>
<td>3</td>
</tr>
<tr>
<td>368 Marketing Strategy</td>
<td>3</td>
</tr>
<tr>
<td><strong>Restrictive Electives</strong></td>
<td>8-9</td>
</tr>
<tr>
<td>365 Buyer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>369 Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>395 Office Management</td>
<td>3</td>
</tr>
<tr>
<td>415 Records Administration</td>
<td>2</td>
</tr>
<tr>
<td><strong>Business Electives</strong></td>
<td>5-6</td>
</tr>
</tbody>
</table>

**Distributive Education**

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Required courses</strong></td>
<td>19</td>
</tr>
<tr>
<td>*121 Typing Applications</td>
<td>11</td>
</tr>
<tr>
<td>224 Calculator Applications: Business and Personal</td>
<td>2</td>
</tr>
<tr>
<td>363 Principles of Retailing</td>
<td>3</td>
</tr>
<tr>
<td>368 Marketing Strategy</td>
<td>3</td>
</tr>
<tr>
<td><strong>Restrictive Electives</strong></td>
<td>8-9</td>
</tr>
<tr>
<td>365 Buyer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>369 Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>395 Office Management</td>
<td>3</td>
</tr>
<tr>
<td>415 Records Administration</td>
<td>2</td>
</tr>
<tr>
<td>461 Sales Management</td>
<td>3</td>
</tr>
<tr>
<td><strong>Business Electives</strong></td>
<td>5-6</td>
</tr>
</tbody>
</table>

**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 466) should 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. In addition, the Group IV education courses (see page 153) 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.

`*Students having deficiencies in elementary typewriting and/or beginning shorthand may register for 220 Typewriting Techniques and/or 225 Shorthand Theory in partial fulfillment of general elective requirements. When students possess proficiency equivalent to course requirements in 121 Typewriting Applications and/or 226 Shorthand Dictation these courses will be waived and substitute courses will be included in the curriculum.`

### Accounting

<table>
<thead>
<tr>
<th>Course</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>341 Intermediate Accounting</td>
<td>3</td>
</tr>
<tr>
<td>344 Tax Accounting</td>
<td>3</td>
</tr>
<tr>
<td><strong>Electives in Accounting</strong></td>
<td>2</td>
</tr>
</tbody>
</table>

### Distributive Education

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>360 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>363 Retailing</td>
<td>3</td>
</tr>
<tr>
<td>368 Marketing Strategy</td>
<td>3</td>
</tr>
<tr>
<td>369 Advertising</td>
<td>3</td>
</tr>
<tr>
<td>401 Business Internship</td>
<td>1</td>
</tr>
<tr>
<td>461 Sales Management</td>
<td>3</td>
</tr>
<tr>
<td><strong>Electives in Business</strong></td>
<td>4</td>
</tr>
</tbody>
</table>

### General Business

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>240 Principles of Accounting</td>
<td>3</td>
</tr>
<tr>
<td>303 Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>304 Law of Business Enterprises</td>
<td>3</td>
</tr>
<tr>
<td>306 General Insurance</td>
<td>3</td>
</tr>
<tr>
<td>308 Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>382 Introduction to Management</td>
<td>3</td>
</tr>
<tr>
<td><strong>Electives in Business</strong></td>
<td>2</td>
</tr>
</tbody>
</table>

### Office Administration

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>215 Computers in Business</td>
<td>3</td>
</tr>
<tr>
<td>*222 Office Services</td>
<td>4</td>
</tr>
<tr>
<td>224 Calculator Applications: Business and Personal</td>
<td>3</td>
</tr>
<tr>
<td>395 Office Management</td>
<td>3</td>
</tr>
<tr>
<td>415 Records Administration</td>
<td>2</td>
</tr>
<tr>
<td><strong>Electives in Business</strong></td>
<td>2</td>
</tr>
</tbody>
</table>

### Secretarial

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>*222 Office Services</td>
<td>4</td>
</tr>
<tr>
<td>224 Calculator Applications: Business and Personal</td>
<td>3</td>
</tr>
<tr>
<td>227 Shorthand Speedbuilding</td>
<td>3</td>
</tr>
<tr>
<td>326 Secretarial Procedures</td>
<td>3</td>
</tr>
<tr>
<td><strong>Electives in Business</strong></td>
<td>1</td>
</tr>
</tbody>
</table>

**SECRETARIAL ADMINISTRATION**

**Careers:**
- administrative secretary
- executive secretary
- certified professional secretary
- office manager
- word processing supervisor

**Major:** Secretarial Administration

**Degree:** Bachelor of Business Administration

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

All majors in this program must complete the basic core in business administration as presented on page 123 plus 23 hours as presented below. In addition to the 10 credit hours required of all majors, students must take 9 credit hours in one of the two optional areas shown below.

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major Concentration</strong></td>
<td>23</td>
</tr>
<tr>
<td><strong>Required</strong></td>
<td>19</td>
</tr>
</tbody>
</table>

**Semester Hours**

**Business Education/129**
COURSES

Business Administration

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.

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.

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.
Prereq: Junior standing or permission of the department.

326 Secretarial Procedures.
Three sem hours
Prereq: 222 Office Services.

395 Office Management.
Three sem hours
Office problems from the point of view of the administrator. Consideration is given to office organization, physical facilities, nature of office work, personnel relations and control of office output.
Prereq: 382 Introduction to Management.

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 of all business education students unless waived. Open to majors in business education and secretarial administration 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 Management.

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.

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. No credit is given to students who have received credit for one year of high school typewriting. Lab fee required.

222 Office Services.
Four sem hours
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 mimeographs. Lab fee required.
Prereq: 120 Typewriting Techniques or one year of high school typewriting.

395 Office Management.
Three sem hours
Office problems from the point of view of the administrator. Consideration is given to office organization, physical facilities, nature of office work, personnel relations and control of office output.
Prereq: 382 Introduction to Management.

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 of all business education students unless waived. Open to majors in business education and secretarial administration and to students in the Flexible Program.

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Two sem hours
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Prereq: 395 Office Management.

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.

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. No credit is given to students who have received credit for one year of high school typewriting. Lab fee required.

222 Office Services.
Four sem hours
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 mimeographs. Lab fee required.
Prereq: 120 Typewriting Techniques or one year of high school typewriting.

226 Shorthand Theory.
Three sem hours
An introduction to the alphabet, brief forms and theory

*Students having deficiencies in elementary typewriting and/or beginning shorthand may register for 120 Typewriting Techniques and 226 Shorthand Theory in partial fulfillment of general elective requirements. When students possess proficiency equivalent to course requirements in 121 Typewriting Applications and/or 226 Shorthand, these courses will be waived and substitute courses will be included in the curriculum.
through the reading and writing of Gregg shorthand. No credit is given to students who have received credit for shorthand in high school.

26 Shorthand Dictation. Three sem hours Emphasis on the development of speed in taking dictation and the typewriting of transcripts. Thorough review of brief forms and theory principles. Prereq: 225 Shorthand Theory or one year of high school shorthand.

27 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.

25 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: 222 Office Services and 227 Shorthand Speedbuilding.

Business Teacher Education


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: 222 Office Services, 224 Calculator Applications: Business and Personal, 227 Shorthand Speedbuilding (non-secretarial students are exempt from 227), and 302 Educational Psychology. A "C" average in all business subjects taken at Eastern Michigan University is required before enrollment.

466 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. Prereq: 241 Principles of Accounting, 360 Principles of Marketing, 363 Retailing, 368 Marketing Strategy and 302 Educational Psychology. A "C" average in all business subjects taken at Eastern Michigan University is required before enrollment.

Business Law

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.


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.
MANAGEMENT

Department Head: Claude I. Shell, Jr.
Professors: Leland Brown, Lincoln W. Deihl, Floyd A. Patrick
Associate Professors: James H. Conley, Jagdish T. Danak,
Donald W. Magoon, Robert C. McCoy, Robert L. Minter
Assistant Professors: Nicholas J. Beltos, Douglas D. Cantrell,
Ralph L. Harris, Charles F. Hoitash, Jon M. Huegli, Alfred
H. Jantz

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 concentrations in the following areas:

Industry. In addition to the basic courses in business administration, employee'selection, training and performance review, staff personnel assignments through the development of 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 currently offers career concentrations in the following areas:

Administrative Communication
Areas of concern include the development of understanding and skills in the appropriate use of communication media and channels to bring about mutual understanding, attitude and behavior modification, and effective coordination in business, industry and other types of organizations. This concentration prepares students for responsibilities in administration, supervision and general management.

General Management
For those students who do not wish to specialize in a particular academic area, the general management concentration provides a broad background in business administration that will equip them for a variety of positions in business and industry. In addition to the basic courses in business administration required of all business majors, each student selects representative courses in accounting, finance, management, marketing and general business which will contribute to his or her educational and vocational objectives.

Industrial Relations—Personnel
This area focuses on the utilization of human resources in the most productive manner in business organizations with compatible goals of individual self-fulfillment and profits. This concentration equips students for line supervisory and staff personnel assignments through the development of knowledge and skills in organization theory and development; employee selection, training and performance review; wage and salary administration; and management-labor relations.

International Business
This is an interdisciplinary concentration offered in conjunction with other departments of the college. It includes courses from the various functional areas, placed in a management setting, designed to give the student an understanding of International Business Operations.

Public and Non-Public Organizations
Emphasis is placed on the necessity of practicing management techniques effectively in organizations with social or governmental objectives rather than monetary profits. Students in these areas are equipped to perform as project administrators, organizational executives or governmental officials.

Small Business Enterprise
Recognition is given to the all-inclusive needs and problems of the small business man who must deploy his efforts in general and broad areas in order to succeed. Students are given a broad management background and the specific techniques required to develop and maintain a small entrepreneurship. Accent is placed on the growing requirements for policy, strategy and social responsibility.

MAJOR AND MINOR

Management Major (24 semester hours)
(To be completed in conjunction with the Bachelor of Business Administration degree).

Semester Hours
Required ........................................... 9
386 Organization Theory and Development .... 3
394 Production Management or
491 Operations Research and Analysis .... 3
480 Management Responsibility in Society .... 3
Concentrations (students should consult with their advisors for guidance in the areas of concentration. Courses chosen will come from the following list or from approved substitutions)
Selected from .................................. 15
342 Managerial Cost Accounting ............. 3
384 Personnel Administration ................. 3
390 Management Systems ..................... 3
394 Production Management .................. 3
396 Materials Procurement and Inventory Control .... 3
399 Small Business Management .............. 3
401 Management Internship .................. 1
402 Business Report Writing .................. 3
403 Labor Law .................................... 3
482 Wage and Salary Administration .......... 3
484 Personnel Relations ....................... 3
485 Training Function in Organizations ...... 3
486 Strategies for Organizational Development ........ 3
487 Problems in Personnel Administration .... 3
489 Comparative Management Systems ....... 3
491 Operations Research and Analysis ...... 3
494 Quantitative Techniques in Production .... 3
497 Independent Study ......................... 1
498 Independent Study ......................... 2
499 Independent Study ......................... 3

Management Minor
Semester Hours
Management Minor (for non-business majors) .... 21
Required ........................................... 9
240 Principles of Accounting .................. 3
360 Principles of Marketing .................. 3
362 Introduction to Management ............. 3
Electives .......................................... 12
215 Computers in Business .................... 3
302 Business Communications ................. 3
384 Personnel Administration ................. 3
386 Organization Theory and Development .... 3
390 Management Systems ..................... 3
394 Production Management .................. 3
396 Materials Procurement and Inventory Control .... 3


<table>
<thead>
<tr>
<th>Course Description</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>Business Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>Management Responsibility in Society</td>
<td>3</td>
</tr>
<tr>
<td>Wage and Salary Administration</td>
<td>3</td>
</tr>
<tr>
<td>Personnel Relations</td>
<td>3</td>
</tr>
<tr>
<td>Training Function in Organizations</td>
<td>3</td>
</tr>
<tr>
<td>Strategies for Organizational Development</td>
<td>3</td>
</tr>
<tr>
<td>Problems in Personnel Administration</td>
<td>3</td>
</tr>
<tr>
<td>Comparative Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>Operations Research and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Techniques in Production</td>
<td>3</td>
</tr>
<tr>
<td>General Business Major (24 semester hours)</td>
<td></td>
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<tr>
<td>(To be completed in conjunction with the Bachelor of Business Administration degree)</td>
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</tr>
<tr>
<td><strong>Semester Hours</strong></td>
<td><strong>9</strong></td>
</tr>
<tr>
<td>358 General Insurance</td>
<td>3</td>
</tr>
<tr>
<td>368 Marketing Strategy</td>
<td>3</td>
</tr>
<tr>
<td>386 Organization Theory and Development</td>
<td>3</td>
</tr>
<tr>
<td><strong>Restricted Electives</strong></td>
<td><strong>15</strong></td>
</tr>
<tr>
<td>(Elect courses, approved by the academic adviser, from at least three of the following areas. A minimum of six hours must be at the 400 level.)</td>
<td></td>
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<tr>
<td>Accounting and Finance</td>
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<tr>
<td>Administrative Services and Business Education Management</td>
<td></td>
</tr>
<tr>
<td>Marketing</td>
<td></td>
</tr>
<tr>
<td>Operations Research and Information Systems</td>
<td></td>
</tr>
<tr>
<td>General Business Minor (20 semester hours)</td>
<td></td>
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<tr>
<td>(a non-teaching minor for non-business majors)</td>
<td></td>
</tr>
<tr>
<td><strong>Semester Hours</strong></td>
<td><strong>9</strong></td>
</tr>
<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>Electives from the following</td>
<td>11</td>
</tr>
<tr>
<td>215 Computers in Business</td>
<td>3</td>
</tr>
<tr>
<td>302 Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>304 Law of Business Enterprises</td>
<td>3</td>
</tr>
<tr>
<td>316 Programming of Business Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>353 Principles of Finance</td>
<td>3</td>
</tr>
<tr>
<td>354 Investments</td>
<td>3</td>
</tr>
<tr>
<td>358 General Insurance</td>
<td>3</td>
</tr>
<tr>
<td>360 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>382 Introduction to Management</td>
<td>3</td>
</tr>
<tr>
<td>402 Business Report Writing</td>
<td>3</td>
</tr>
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</table>

**COURSES**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>302 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>Study of principles, elements and practices underlying administrative communication. Particular attention given to the thinking and creative processes involved in problem solving. Emphasis on the psychology, planning and transmittal of business information. Prereq: Junior standing or permission of the department.</td>
<td></td>
</tr>
<tr>
<td>382 Introduction to Management</td>
<td>3</td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>384 Personnel Administration</td>
<td>3</td>
</tr>
<tr>
<td>Industrial relations functions in business organization. Recruitment, selection, placement, training, motivation and appraisal of personnel; emphasizing the scientific approach to the solution of practical problems of industrial manpower utilization. Prereq: 382 Introduction to Management or permission of the department.</td>
<td></td>
</tr>
<tr>
<td>386 Organization Theory and Development</td>
<td>3</td>
</tr>
<tr>
<td>399 Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>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. Prereq: 382 Introduction to Management, 353 Principles of Finance and 360 Principles of Marketing.</td>
<td></td>
</tr>
<tr>
<td>401 Management Internship</td>
<td>1</td>
</tr>
<tr>
<td>One semester hour 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 three semester hours credit. Prereq: Management major and permission of the department.</td>
<td></td>
</tr>
<tr>
<td>402 Business Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>480 Management Responsibility in Society</td>
<td>3</td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>482 Wage and Salary Administration</td>
<td>3</td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>484 Personnel Relations</td>
<td>3</td>
</tr>
<tr>
<td>An overview of the environmental framework and resources related to effective management-union relationships in today's industrial and non-industrial organizations; background and techniques in maintaining profitable employee relationships under an organized situation; strategy and tech-</td>
<td></td>
</tr>
</tbody>
</table>
niques of negotiation and contract administration from the management viewpoint.
Prereq: 384 Personnel Administration 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 Problems in Personnel Administration.
Three sem hours
Cases in the major functional areas of personnel administration are used to develop skill in analysis and solution or resolution of operating problems.
Prereq: 384 Personnel Administration and 386 Organization Theory and Development 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, Edith G. Phillips
Assistant Professors: Charles R. Ashton, Dub Ashton, Ronald L. Zallocco

The department's primary concern is developing young men and women in 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 career concentrations in the following areas: Advertising and Sales Promotion, Distribution Management, International Business, Marketing Research, Retailing and Sales and Sales Management. Beginning in 1975-76, the department will offer a new major in Shopping Center Management.

MAJORS AND MINOR

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:

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing Area of Concentration</td>
</tr>
<tr>
<td>Required</td>
</tr>
<tr>
<td>365 Buyer Behavior</td>
</tr>
<tr>
<td>368 Marketing Strategy</td>
</tr>
<tr>
<td>470 Marketing Research</td>
</tr>
<tr>
<td>475 Marketing Management</td>
</tr>
<tr>
<td>Electives</td>
</tr>
</tbody>
</table>

(Students majoring in marketing are encouraged to complete one of the following areas of specialization.)

Advertising and Sales Promotion. The advertising concentration prepares students for positions leading to careers as an account executive, sales promotion manager and advertising manager. Areas of interest include the communication process, selection of the advertising appeal, media choice and the advertising campaign, among others.

| 325 Expository Writing or 215 Journalism | 3 |
| 369 Advertising | 3 |
| 466 Broadcasting in Society or 301 Commercial Design and 302 Commercial Art | 3 |
| 472 Promotional Strategy | 3 |

Distribution Management. The distribution concentration prepares students for careers as retail operations manager, distribution manager, trade relations manager, and traffic manager. Marketing channels, relations between manufacturers, wholesalers and retailers, cost of alternative distribution systems are just some of the topics emphasized in this area.

| 364 Distribution Systems | 3 |
| 366 Economics of Transportation | 3 |
| 317 Simulation and Systems Analysis | 3 |
| Elective | 3 |

International Business. The international business concentration prepares students for careers in a variety of positions in organizations conducting business in foreign environments. Course work describing international trade, foreign exchange, comparative advantage, marketing opportunity assessment is discussed.
235 Economic Geography ........................................ 3
460 International Economics ................................ 3
472 International Business ...................................... 3
Elective .................................................................. 3
(Course work in a foreign language is suggested)

Marketing Research. The marketing research concentration prepares students for a variety of positions in the research field, such as research analyst and director of marketing research. Topics such as problem definition, research design, data collection and analysis and making recommendations based on research are stressed.

445 Business Cycles .................................................. 3
465 Business Statistics II ........................................... 3
Electives .................................................................. 6

Retailing. The retailing concentration prepares students for careers as retail buyers, merchandising managers and store managers. Course work in this field covers such subjects as retailing as an institution, site selection, product assortment, merchandising, retail advertising and inventory control.

261 Contemporary Selling ......................................... 3
363 Retailing .......................................................... 3
369 Advertising ....................................................... 3
384 Personnel Administration ..................................... 3

Sales and Sales Management. The Sales and Sales Management concentration prepares students for such careers as salesman, district sales manager and corporate sales manager. Areas stressed include techniques of selling, sales psychology, sales training, sales forecasting, purchasing procedures and value analysis.

261 Contemporary Selling ......................................... 3
374 Industrial Marketing and Purchasing ...................... 3
461 Sales Management ............................................. 3
384 Personnel Administration ..................................... 3

Minor in Marketing

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
240 Principles of Accounting ....................................... 3
360 Principles of Marketing ....................................... 3
362 Introduction to Management .................................. 3
Marketing Electives ................................................. 6
Business Electives (approved by adviser) ......................... 6

Marketing Electives for Minors:
261 Contemporary Selling ......................................... 3
363 Retailing .......................................................... 3
364 Distribution Systems ........................................... 3
365 Buyer Behavior ................................................. 3
368 Marketing Strategy ............................................. 3
369 Advertising ....................................................... 3
374 Industrial Marketing and Purchasing ...................... 3
461 Sales Management ............................................. 3
470 Marketing Research ............................................ 3
472 International Business ........................................ 3
473 Marketing Environment ....................................... 3
474 Promotional Strategy ......................................... 3
475 Marketing Management ....................................... 3

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:

Required courses .................................................... 24
359 Real Estate Principles and Practices ....................... 3
363 Retailing .......................................................... 3
369 Advertising ....................................................... 3
384 Personnel Administration ..................................... 3
459 Property and Liability Insurance .......................... 3
454 Real Estate Finance ........................................... 3
476 Shopping Center Seminar .................................... 3
401 Internship Program or approved elective ................. 3

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.
Prereq: 201 Principles of Economics.

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 relationships 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 inte-
grating 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.

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.

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: 470 Marketing Research and 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: 360 Principles of Marketing and permission of the department.

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.

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 Professor: Nesa L. Wu, Kenneth C. Young
Assistant Professors: Sergio Antiochia, Richard K. Brewer, Vernon R. Hoffner, Jr., Asad S. Khilany, Fat-hi Sokkar

This department prepares graduates for careers in three applied areas: (1) business information and computer systems, (2) management science and operations research, and (3) production systems. Students may major or minor in Business Computer Systems and may complete electives in Management Science and Production Systems. New majors and minors are being developed in (1) Management Science and Operations Research and (2) Production Systems. These areas are described below and students interested may choose courses to meet elective requirements.

BUSINESS COMPUTER SYSTEMS

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>
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<tbody>
<tr>
<td>Required:</td>
<td></td>
</tr>
<tr>
<td>316 Programming Business Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>317 Simulation and Systems Analysis</td>
<td>3</td>
</tr>
<tr>
<td>415 Design of Computer-Based Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>417 Administration of Computer-Based Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>418 Computers in Business Decision-Making</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 Business Operating Systems Analysis</td>
<td>3</td>
</tr>
<tr>
<td>419 Integration of Computer-Based Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>426 Advanced COBOL for Business Systems</td>
<td>3</td>
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<tr>
<td>446 (Accounting) Financial Information Systems</td>
<td>3</td>
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<tr>
<td>Electives in Business administration (Elect one area for a concentration if desired)</td>
<td>6</td>
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</tbody>
</table>

Management Science and Operations Research

Emphasis is given to preparation for statistical modeling and the decision-making process. Career fields in business, industry and government agencies include systems and research analysis, operations management, business research, value analysis and systems design.

Production Systems

Production science deals with the techniques and knowledge employed in the process of producing manufactured goods. It includes inventory procurement and movement, resource allocation, production scheduling and planning and product and material quality control. Students are prepared to enter technical manufacturing management positions in purchasing, quality control, industrial engineering, plant and process design and layout, as well as other positions in the product planning function.

Business Computer Systems Minor (21 Semester Hours)

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>21</th>
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<tbody>
<tr>
<td>Required:</td>
<td></td>
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<tr>
<td>215 Computers in Business</td>
<td>3</td>
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<tr>
<td>240 Principles of Accounting</td>
<td>3</td>
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<tr>
<td>316 Programming Business Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>382 Introduction to Management</td>
<td>3</td>
</tr>
<tr>
<td>415 Design of Computer-Based Information Systems or 418 Computers in Business Decision-Making</td>
<td>3</td>
</tr>
<tr>
<td>Electives from the following</td>
<td>6</td>
</tr>
<tr>
<td>317 Simulation and Systems Analysis</td>
<td>3</td>
</tr>
<tr>
<td>337 (Mathematics) Computer Programming Languages</td>
<td>3</td>
</tr>
<tr>
<td>417 Administration of Computer-Based Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>415 Design of Computer-Based Information Systems or 418 Computers in Business Decision-Making</td>
<td>3</td>
</tr>
<tr>
<td>446 (Accounting) Financial Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>416 Business Operating Systems Analysis</td>
<td>3</td>
</tr>
<tr>
<td>419 Integration of Computer-Based Information Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

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 Sciences I. Credit will not be given for both 215 Computers in Business and Mathematics 137 Introduction to Computer Programming.

316 Programming of Business Information Systems. Three sem hours
Programming languages and techniques typically encountered in computer-based business information systems. Includes a detailed study of the COBOL business-oriented
programming language, data file organization and processing methods.
PreReq: 215 Computers in Business or permission of the department.

317 Simulation and Systems Analysis. Three sem hours
Computer-based models and simulation techniques for business analysis and decision-making. Includes analytical development and computer implementation of simulation models of various types of business processes and systems. Each student will use the computer to construct and process models of various degrees of sophistication, including a term project related to the student's major area of interest.

365 Business Statistics I. Three sem hours
Elementary statistics with emphasis on business, economic and sociological applications. Averages, dispersion, sampling, time series and correlation. (May be used to satisfy the Group II requirements.)
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 application. Methods of establishing, analyzing, standardizing and controlling administrative systems. Work simplification, workflow charting and systems control applications to organizational units.
PreReq: 362 Introduction to Management.

394 Production Management. Three sem hours
An introduction to the production function in business and industry through an acquaintance with the managerial aspects of manufacturing operations. Topics include manufacturing policy, product and design, manufacturing processes, plant location and layout, operational analysis, performance standards, inventory and production control. Implications of automation and technological change are discussed.
PreReq: 382 Introduction to Management; PreReq or Coreq: 365 Business Statistics I.

396 Materials Procurement and Inventory Control. Three sem hours
Materials procurement and management viewed as an essential adjunct to the production function in business and materials procurement, storage and production activity. Principles and practices conducive to effective production management through quantitative and qualitative controls in relation to the factors of time, place and price are presented from an administrative policy viewpoint.
PreReq: 394 Production Management or permission of the department.

401 Internship Program. One sem hour
Directed full-time work experience in the general business or business computer systems units of a business organization. This course may be repeated for a maximum total of three hours.
PreReq: Major and permission of the department.

415 Design of Computer-Based Information Systems. Three sem hours
This course discusses the design and implementation of data structures for business information systems. Data base theory and accessing techniques are primary topics to be covered.
PreReq: 316 Programming of Business Information System or permission of the department.

416 Business Operating System Analysis. Three sem hours
Decision methods and concepts are presented in this course to determine the type of computer installation required for a particular business environment. Discussion includes operating systems design with respect to the type of supervisor, monitor, number of devices, size and speed of the computer and the allocation of these resources to the various components of the business community.
PreReq: 316 Programming of Business Information Systems.

417 Administration of Computer-Based Information Systems. Three sem hours
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 Computer Systems in Business Decision-Making. 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 Integration of Computer-Based Information Systems. Three sem hours
The objective of this course is to provide the student with the experience of developing an actual integrated computer-based information system. Such a system would involve the integration of several sub-systems which have been developed using a project-team approach. Development methods and case studies are used which will provide actual work experience relationship with respect to computer-based information systems.

426 Advanced COBOL for Business Systems. Three sem hours
This course provides numerous practical examples which can be beneficial to all COBOL programmers. Emphasis will be on topics such as: file organization, sorting, table handling, report writing, subprograms, COBOL source optimization techniques, program debugging and documentation.
PreReq: 316 Programming Business Information Systems.

465 Business Statistics II. Three sem hours
Testing of hypotheses, power functions and Bayesian inference. Chi squares, F and t distributions; analysis of variance. Index numbers and time series analysis. Simple and multiple regression and multiple correlation.
PreReq: 365 Business Statistics I.

491 Operations Research and Analysis. Three sem hours
An introduction to 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, transportation models, trans-shipment models, assign-
Input output models and zero-sum game models.

Prereq: 365 Business Statistics I and 362 Introduction to Management or equivalent.

494 Quantitative Techniques in Production.

Three sem hours

An advanced course in the application of operations research techniques to production problems.

Prereq: 394 Production Management and 491 Operations Research and Analysis or permission of the department.

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

DEAN: Allen Myers
Associate Dean: Francis M. Daly, Jr.

DEPARTMENTS

Curriculum and Instruction
  Education
  Educational Leadership
  Educational Psychology
  Guidance and Counseling
  Health, Physical Education and Recreation
  Special Education
CURRICULUMS FOR TEACHERS

The College of Education is comprised of the Departments of Educational Leadership, Educational Psychology, Curriculum and Instruction, Education, Guidance and Counseling, Health, Physical Education and Recreation, Special Education, and the Offices of Student Teaching, Pre-Student Teaching and Admissions.

Admissions

The College of Education:

1. supervises selection, advisement and retention of students who are preparing for teaching certificates.
2. provides instruction in professional course work for students preparing for teaching certificates.
3. places and supervises pre-student teachers.
4. places and supervises student teachers.
5. provides service courses for other colleges and departments of the University.
6. provides specialized course work for students in curriculums other than teacher education.

A student seeking the bachelor’s degree and a teacher’s certificate may select from twelve curriculums the one which will allow him an opportunity to develop competency in the teaching field of his choice.

The twelve curriculums are:

Curriculums for Elementary Teachers

1. Early Elementary
2. Later Elementary (including early childhood education)

Curriculum for Secondary Teachers

1. Junior-Senior High School

Curriculums for Teachers of Specialized Subjects

1. Art
2. Business Education
3. Home Economics
4. Industrial Education
5. Library (Librarians in elementary, junior and senior high schools)
6. Music
7. Physical Education
8. Recreation
9. Special Education

TEACHING CURRICULUMS

REQUIREMENTS

Admissions and Pre-Student Teaching

Vernon H. Jones, Director

In addition to general University curricular requirements, there are certain requirements common to all teaching curriculums. They are as follows:

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 second or 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 (1) teacher preparation at E.M.U., (2) the role of pre-student teaching in the programs, (3) pre-student teaching procedures, (4) 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; 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, SPA 241 Introduction to Speech Correction 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 for requiring such experiences is to enable students to understand 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 when they are 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 and 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, assisting in Boy’s Clubs, Boy Scouts, Girl Scouts, YMCA and YMWA, hospitals, community centers, church youth groups, day care centers and in nurseries. Other activities include tutoring, working with culturally deprived children in enrichment programs after school and on Saturdays and participation in 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 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
Kenneth W. Stanley, Director

All candidates for teaching certificates are required to engage in student teaching, for which eight semester hours of credit may be earned. The sequence of student teaching courses will be determined by the curriculum pursued.

Students in the special education curriculum are required to devote one semester to teaching in a regular classroom and another semester to teaching a class in special education. The regular classroom student teaching must be completed successfully prior to assignment in special education student teaching.

Students in education for the hearing impaired are required to complete four semester hours of student teaching with normal children and eight semester hours with the hearing impaired.

Students specializing in education for the visually impaired (blind and partially seeing) are required to complete four semester hours of student teaching with normal children and six semester hours of student teaching with visually impaired children.

Students specializing in education for the mentally impaired are required to complete four semester hours of student teaching with normal children and six semester hours of student teaching with mentally impaired children.

Students specializing in education for the crippled or otherwise health impaired are required to complete four semester hours of student teaching with normal children and six semester hours of student teaching with the crippled or otherwise health impaired.

Students specializing in speech and language impaired are required to complete four semester hours of student teaching with normal children at the undergraduate level and four semester hours of student teaching in speech and language impaired during the fifth year of study.

Students specializing in the teaching of emotionally impaired children are required to complete four semester hours of student teaching with normal children and six semester hours with emotionally impaired children.

All students preparing to teach junior and senior high school academic subjects or in the special fields of art, music, home economics, industrial education and physical education are required to engage in student teaching for a total of eight semester hours credit.

Persons who have completed satisfactorily one year of preparation in a Michigan county normal school are given credit for three semester hours of student teaching. They are required to take such additional units as are specified on the particular curriculum pursued.

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 scholarship index is less than 2.0 (below "C" average).

3. After having received this assignment, the student must enroll in the appropriate student teaching course. See page 164 in this catalog for a description of these courses.

4. Priority in summer session student teaching is given to those students who hold a special teaching certificate and who are experienced teachers. Priority of placement in spring session student teaching is given to those students needing four semester hours or less of student teaching.

5. Students who are pursuing a four-year curriculum should not begin their student teaching before the first semester of the senior year.

6. The standard class load for student teachers is fifteen semester hours. To be considered by the coordinator of student teaching for more than fifteen semester hours, the student must have a 3.0 cumulative index and be recommended by the Office of Academic Advising.

7. Students are expected to take work on campus prior to student teaching. Students applying for student teaching who have had no work on campus will be required to submit a record showing satisfactory completion of an approved program leading to student teaching. Recommendations from suitable officials at the applicant's former institution and/or from employers must be received at Eastern Michigan University prior to August 1 for fall semester and November 1 for winter semester student teaching.

8. During the time that the student is doing his teaching, he should so arrange his daily schedule that his teaching will take precedence over other interests and duties.

9. Conferences are designed for the assistance of student teachers. The student is expected to attend student teacher assemblies as called. He is expected to have conferences with his cooperating teachers and university supervisor.

10. The following prerequisites are to be completed prior to student teaching:

   a. 302 Educational Psychology and 303 Principles of Teaching or 320 Human Growth and Development and 326 School and Society

   b. Early Elementary: Two of the specific methods courses (310 Teaching of Reading, 381 Teaching of Mathematics or 302 Science for Elementary Grades)

   c. Later Elementary: Two of the specific methods courses (310 Teaching of Reading, 381 Teaching of Mathematics, 302 Science for Elementary Grades or 348 Teaching Social Studies in the Elementary School)

   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 Boone Hall. Applications should be completed and returned to the Student Teaching Office prior to the appropriate deadline date of January 15, for placement in the following fall semester, and March 15, for the winter semester. Applications for student teaching in the spring and summer sessions are to be completed and returned by the previous February 15.

Coordinating Council on Professional Education

Continuous integration of the teacher education program is the objective of the Coordinating Council on Professional Education, which is composed of representatives of the College of Education, a representative of the Division of Field Services and a representative from the Division of Student Affairs. The council recommends requirements for admission to professional course work, passes upon applications for student teaching, advises on relevant matters concerned with the operation of the teacher education program and plans the further development of the program.
CURRICULUMS FOR ELEMENTARY TEACHERS

Early Elementary Curriculum

Bachelor of Science Degree
State Elementary Provisional Certificate
Kindergarten, Grades 1, 2 and 3

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 29. 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

Group I Language ........................... 11-13
One course in English composition or, if eligible, a foreign language course.
One course in fundamentals of speech.
One elective course in English language, in a foreign language, in speech, or in library science (Group I).

207 Introduction to Children’s Literature .......... 3

Group II Science and Mathematics .................. 18
101 Functional Mathematics .................... 3
101 General Psychology ....................... 3
*100 Science for Elementary Teachers (Physics) ... 3
*101 Science for Elementary Teachers (Chemistry) ... 3
*102 Science for Elementary Teachers (Earth Science) ... 3
*203 Science for Elementary Teachers (Biology) ... 3

Group III Social Sciences ......................... 9-12
One course in American government 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 courses below).

Group IV Education .......................... 28
**310 Teaching of Reading ...................... 3
320 Human Growth and Development ............. 4
**326 School and Society ...................... 6
344 Audio-Visual Methods in Teaching .......... 2
**381 Teaching of Mathematics K-6 ............ 3
418 Seminar in Education ..................... 2
492 Student Teaching .......................... 8

Group V Fine Arts ............................. 6
101, 300 Art .................................. 6
104, 320 Music ................................ 5

Group VI Practical Arts ......................... 3
253 Industrial Technology and the Elementary Teacher ............. 3
354 Experiences in Technology for Children ........ 2

Group VII Physical Education and Health ........ 2
320 Health Education in Elementary Grades .... 2
Physical education activity courses (eight activity hours) All students may take 157 Physical Education for Classroom Teacher .......... 4

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

Additional Required Work ........................ 2
241 Introduction to Speech Correction ......... 1
Free electives ................................. 25-18
Total ........................................ 124

The student must complete:
1. A major of at least 30 semester hours or a group major of 36 semester hours, and a planned program, which may consist of courses required on the Curriculum for Teachers in the Elementary Grades, of 20 semester hours in other substantive fields deemed appropriate to elementary education.
2. Three minors each of at least 20 semester hours, two of which shall be in substantive fields, which could include a group minor of 24 semester hours. The third minor may be a planned program, which may consist completely of courses required on the Curriculum for Teachers in the Elementary Grades, of 20 semester hours in a combination of content and methods appropriate to elementary education. When this “Content and Methods” minor is used as one of the three minors, the student must not select an arts group minor 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 department requirements for details.


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.

*The starred courses in Group II Science include preparation in methods of teaching elementary school science. Prospective elementary teachers should take the special section of 320 Health Education in Elementary Grades from Group VII as a part of this program. Courses 100, 101, 102, 203, and 320 should be taken in sequence. Advisers should be consulted by transferees and other students where adjustments may be necessary.

**Students who have credit for 303 Principles of Teaching, or 340 Introduction to Measurement and Evaluation should continue to satisfy those requirements. The double-starred courses under Group IV Education must be completed prior to student teaching.
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. Activity hours to satisfy physical education requirements are taken in addition to the normal academic load of 15 to 16 semester hours.

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 and the minimum total of 40 semester hours of credit in Basic Studies, as specified in detail on page 29. 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>Semester Hours</th>
</tr>
</thead>
</table>
| **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). |  
| 207 Introduction to Children’s Literature | 3  
| **Group II Science and Mathematics** | 18  
| 101 Functional Mathematics | 3  
| 101 General Psychology | 3  
| *100 Science for Elementary Teachers (Physics) | 3  
| *101 Science for Elementary Teachers (Chemistry) | 3  
| *102 Science for Elementary Teachers (Earth Science) | 3  
| *203 Science for Elementary Teachers (Biology) | 3  
| **Group III Social Sciences** | 12  
| One course in history | 3  
| 110 World Regions | 3  
| Continental Geography course | 3  
| Either of the following: | 3  
| 112 American Government or 202 State and Local Government |  
| **Humanities** | 9  
| Two courses in literature in the English Department, two intermediate foreign language courses or two advanced foreign language literature courses. |  
| One course in philosophy or religion. |  
| One course in art, music or dramatic arts. |  
| **Group IV Education** | 29  
| 302 Educational Psychology | 3  
| 303 Principles of Teaching | 3  
| **310 Teaching of Reading** | 3  
| 340 Introduction to Measurement and Evaluation | 2  
| 344 Audio-Visual Methods in Teaching | 2  
| **348 Teaching Social Studies in Elementary Schools** |  
| **381 Teaching of Mathematics K-6** | 3  
| 418 Seminar in Education | 2  
| 492 Student Teaching | 3  
| **Group V Fine Arts** | 11  
| 101, 300 Art | 6  
| 104, 321 Music | 5  
| **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 Elementary Grades | 2  
| Physical education activity courses (eight activity hours) | 4  
| Note: Two semester hours of military science may be applied toward this requirement. |  
| **Free electives** | 23-22  
| **Total** | 124  

In addition to the above requirements, students must complete one of the following options:

The student must complete:

1. A major of at least 30 semester hours or a group major of 36 semester hours, and a planned program, which may consist of courses required on the Curriculum for Teachers in the Elementary Grades, and 20 semester hours in other substantive fields deemed appropriate to elementary education, or

2. Three minors each of at least 20 semester hours, two of which shall be in substantive fields, which could include a group minor of 24 semester hours. The third minor may be a planned program, which may consist of courses required on the Curriculum for Teachers in the Elementary Grades, of 20 semester hours in one substantive field and methods appropriate to elementary education. When this “content and methods” minor is used as one of the three minors, the student must not select an arts group minor 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 department requirements for details.


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 advisor, a student may elect to complete the required courses and 36 hours of credit toward the Bachelor of Science Degree in Elementary Education in one semester. The student may elect to take additional hours in “free electives” to meet the 124-hour requirement for graduation.

The starred courses in Group II Science include preparation in methods of teaching elementary school science. Prospective elementary teachers should take the special section of 320 Health Education in Elementary Grades from Group VII as a part of this program. Courses 100, 101, 102, 203 and 320 should be taken in sequence. Advisers should be consulted by transferees and other students where adjustments may be necessary.

**Prior to student teaching 302 Education Psychology, 303 Principles of Teaching and two of the double-starred courses in Group IV Education must be completed.**
advisor, 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. Activity hours to satisfy physical education requirements are taken in addition to the normal academic load of 15 to 16 semester hours.

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 departmental headings earlier in this 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 Title</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>300 Creative Arts</td>
<td>3</td>
</tr>
<tr>
<td>222 The Child and Drama</td>
<td>3</td>
</tr>
<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>320 Early Elementary Music Education</td>
<td>3</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 semester hours

Arts Group Minor (24 semester hours)

This arts group minor should not be used as one of the three minors toward an elementary certificate, since the third minor is normally a "content and methods" minor which automatically uses all of the arts group courses already required on an elementary curriculum.

All courses listed above under arts group major except 222. Add electives to complete the minor from courses in the following: fine arts, industrial education, music or dramatic arts.

Total: 24 semester hours

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

- Fine Arts: 115, 212, 213 or 421 History of Art; 122 Two-Dimensional Design, 305 Graphics, 307 Ceramics and Art Workshops offered during the summer semester.
- Industrial Education: 102 Woodwork, 104 Graphic Arts, 121 Graphic Communication, 152 Arts and Crafts and 253 Art Metalwork.

Elementary Science Group Major (36 semester hours)

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>101 Science for Elementary Teachers (Physics)</td>
<td>3</td>
</tr>
<tr>
<td>101 Science for Elementary Teachers (Chemistry)</td>
<td>3</td>
</tr>
<tr>
<td>102 Science for Elementary Teachers (Earth Science)</td>
<td>3</td>
</tr>
<tr>
<td>203 Science for Elementary Teachers (Biology)</td>
<td>3</td>
</tr>
<tr>
<td>102 or 101 General Psychology</td>
<td>4-3</td>
</tr>
</tbody>
</table>

Restricted electives from courses listed below

Total: 36 semester hours

Elementary Science Group Minor (24 semester hours)

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 Science for Elementary Teachers (Physics)</td>
<td>3</td>
</tr>
<tr>
<td>101 Science for Elementary Teachers (Chemistry)</td>
<td>3</td>
</tr>
<tr>
<td>102 Science for Elementary Teachers (Earth Science)</td>
<td>3</td>
</tr>
<tr>
<td>203 Science for Elementary Teachers (Biology)</td>
<td>3</td>
</tr>
<tr>
<td>102 or 101 General Psychology</td>
<td>4-3</td>
</tr>
</tbody>
</table>

Restricted electives from courses listed below

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 Geography of National Parks, 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)

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>343, 344 French Conversation and French Composition</td>
<td>5</td>
</tr>
</tbody>
</table>

Total: 20 semester hours

French:
### Library Science Minor (20 semester hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>207 Introduction to Children's Literature</td>
<td>3</td>
</tr>
<tr>
<td>314 Literature for Young Adults</td>
<td>3</td>
</tr>
<tr>
<td>320 The Media Center in the School</td>
<td>3</td>
</tr>
<tr>
<td>402 General Reference</td>
<td>3</td>
</tr>
<tr>
<td>404 Selection and Use of Materials</td>
<td>3</td>
</tr>
<tr>
<td>405 Organization of Materials</td>
<td>3</td>
</tr>
<tr>
<td>406 Storytelling or 409 History of Books and Libraries</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Language</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>121 English Composition</td>
<td><strong>3</strong></td>
</tr>
<tr>
<td>Nine hours to be chosen from the following, three of which must be either 325 Expository Writing or 335 Imaginative Writing</td>
<td><strong>9</strong></td>
</tr>
<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>

<table>
<thead>
<tr>
<th>Speech and Dramatic Arts</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>121 or 124 Fundamentals of Speech</td>
<td><strong>2-3</strong></td>
</tr>
<tr>
<td>132 Interpretive Reading</td>
<td>3</td>
</tr>
<tr>
<td>222 The Child and Drama</td>
<td>3</td>
</tr>
<tr>
<td>Elective in speech or dramatic arts</td>
<td><strong>4-3</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>36</strong></td>
</tr>
</tbody>
</table>

The courses listed above under Literature and 121 English Composition may be applied to the English language and literature minor 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 114.

### 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>Required Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>253 Industrial Technology and the Elementary Teacher</td>
<td><strong>5</strong></td>
</tr>
<tr>
<td>354 Experiences in Technology for Children</td>
<td>2</td>
</tr>
<tr>
<td><strong>Choose two from the following:</strong></td>
<td><strong>6</strong></td>
</tr>
<tr>
<td>116 Elements of Production</td>
<td>3</td>
</tr>
<tr>
<td>121 Graphic Communication</td>
<td>3</td>
</tr>
<tr>
<td>200 Electricity-Electronics I</td>
<td>3</td>
</tr>
<tr>
<td>218 Energy Systems</td>
<td>3</td>
</tr>
<tr>
<td><strong>Electives</strong></td>
<td><strong>9</strong></td>
</tr>
<tr>
<td>102 Woodwork</td>
<td>3</td>
</tr>
<tr>
<td>104 Graphic Arts Processes</td>
<td>3</td>
</tr>
<tr>
<td>105 History of Industrial Technology</td>
<td>3</td>
</tr>
<tr>
<td>122 Technical Drawing</td>
<td>3</td>
</tr>
<tr>
<td>152 Arts and Crafts</td>
<td>3</td>
</tr>
<tr>
<td>217 Field Study in Industries</td>
<td>2</td>
</tr>
<tr>
<td>250 Foundations of Industrial Education</td>
<td>3</td>
</tr>
<tr>
<td>317 Structure of Industry</td>
<td>2</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>
<tr>
<td><strong>Total Semester Hours</strong></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>

### 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:

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>105 Introductory Sociology</td>
<td><strong>3</strong></td>
</tr>
<tr>
<td>123 Trends in U.S. History or two history courses</td>
<td><strong>3-6</strong></td>
</tr>
<tr>
<td>110 World Regions</td>
<td>3</td>
</tr>
<tr>
<td><strong>200 American Economy</strong> (or 201 Principles of Economics I)</td>
<td>3</td>
</tr>
<tr>
<td>112 American Government</td>
<td>3</td>
</tr>
<tr>
<td><strong>Social science electives</strong></td>
<td><strong>9-6</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>24</strong></td>
</tr>
</tbody>
</table>

Geography and geology courses in science (Group II courses) and philosophy courses do NOT count on this minor.

### Pilot Undergraduate Program in Early Childhood Education

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 preschool as well as elementary school children. The graduates of the program receive elementary certification plus nursery school endorsement and are qualified to work in preschools 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 includes 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 include 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 . 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 Advising Office, 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>Group I Language</th>
<th>14-15</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>207 Introduction to Children's Literature</td>
<td>3</td>
</tr>
<tr>
<td>222 The Child and Drama</td>
<td>3</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>Two courses in sociology</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group IV Social Sciences</th>
<th>3</th>
</tr>
</thead>
<tbody>
<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>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Either of the following:</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>112 American Government or</td>
<td></td>
</tr>
<tr>
<td>202 State and Local Government</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Humanities</th>
<th>9</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>
</tbody>
</table>

One course in philosophy or religion (Arts course requirement automatically met in Group V below.)

<table>
<thead>
<tr>
<th>Group IV Education</th>
<th>33</th>
</tr>
</thead>
<tbody>
<tr>
<td>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>

<table>
<thead>
<tr>
<th>Group V Fine Arts</th>
<th>2-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any one of the following:</td>
<td></td>
</tr>
<tr>
<td>101 Introduction to Art</td>
<td>3</td>
</tr>
<tr>
<td>300 Creative Arts</td>
<td>3</td>
</tr>
<tr>
<td>104 Elements of Music</td>
<td>2</td>
</tr>
<tr>
<td>322 Music Literature for Children</td>
<td>2</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 (eight activity hours)</td>
<td></td>
</tr>
</tbody>
</table>

Must include:

- 157 Physical Education for 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 preschools 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.

Preq: 101 or 102 General Psychology.

#### Junior Year

**ECE 300 The Young Child in School and Society**

An overview of the relationships between contemporary social forces and trends in early childhood education. Early childhood curricular models, preschool 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 paraprofessional 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.
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 experiences will provide students opportunities to test their proficiency in implementing their ideas.

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**Student Teaching Early Childhood Education**

Directed student teaching. a) 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.

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Students must complete appropriate majors and minors. The following options are suggested:

<table>
<thead>
<tr>
<th>Hours from Above</th>
<th>Additional Hours</th>
<th>Total Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Option A</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Science Group Major</td>
<td>12</td>
<td>24</td>
</tr>
<tr>
<td>Substantive Field Planned Program selected from Group I courses</td>
<td>17-18</td>
<td>2-3</td>
</tr>
<tr>
<td><strong>Option B</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English, Speech and Dramatic Arts Major</td>
<td>20</td>
<td>16</td>
</tr>
<tr>
<td>Substantive Field Planned Program selected from Group III courses</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td><strong>Option C</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drama for the Young</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Social Science Group Minor</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Content and Methods Planned Program</td>
<td>17-18</td>
<td>2-3</td>
</tr>
<tr>
<td><strong>Option D</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English, Language and Literature Minor</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>Social Science Group Minor</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Content and Methods Planned Program</td>
<td>17-18</td>
<td>2-3</td>
</tr>
</tbody>
</table>

Academic hours, meeting all requirements, must total at least 120, exclusive of any hours used in lieu of physical education activity, such as military science or health hours. With above options, required elective hours to complete 120 academic hours are:

- Option A ...........................................15-16 elective hours
- Option B ...........................................15 elective hours
- Option C ...........................................15-16 elective hours
- Option D ...........................................19-20 elective hours

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**CURRICULUM FOR SECONDARY TEACHERS**

**Junior-Senior High School Curriculum**

**Bachelor of Arts or Bachelor of Science Degree**

**State Secondary Provisional Certificate**

(Students intending to teach the following specialized subjects in junior-senior high—art, business education, home economics, industrial education, library science, music, physical education, dance and recreation—should follow the curriculums listed in the next section, 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 29. 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, literature, language arts, mathematics (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 course. |

---

*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.
sequence in sociology-cultural anthropology or economics or geography (Group III).
Humanities ................................................................. 11-12
Two courses in literature in the English Department, two intermediate foreign language courses, or two advanced foreign language literature courses.
One course in philosophy or religion.
One course in art, music or dramatic arts.
Group IV Education ...................................................... 24-25
320 Human Growth and Development .............................. 4
326 School and Society .................................................. 6
Methods course ............................................................ 2-3
405 Guidance Function of Secondary School Teacher ............ 2
418 Seminar in Education ................................................ 2
492 Student Teaching .................................................... 8
Group VII Physical Education and Health .......................... 4
Physical education activity courses (eight activity hours) ......... 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 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 his/her 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. Activity hours to satisfy physical education requirements are taken in addition to the normal academic load of 15 or 16 semester hours.

The following typical pattern of subjects by year is suggested in meeting the above requirement:

**First Year**

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>121 or 124 Fundamentals of Speech .......................... 2-3</td>
</tr>
</tbody>
</table>
| 121 English Composition or
| A foreign language course ....................................... 3-5 |
| 101, 102 Reading of Literature or
| 221, 222 Foreign Language ....................................... 6 |
| Two laboratory science courses or
| One laboratory science course and
| A mathematics course ............................................. 6-8 |
| 101, 102 History of Civilization or
| Two history courses or
| one of these plus a course in economics, geography or sociology ............................................... 6 |
| A fine arts course in art, music or dramatic arts ............ 2-3 |
| Physical Education (2) ............................................. 1 |
| Courses in major per adviser |

**Second Year**

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>101 General Psychology ........................................... 3</td>
</tr>
</tbody>
</table>
| 112 American Government or
| 202 State and Local Government ................................ 3 |
| One sociology, geography or economics course (if needed) .... 3 |

Physical education activity (4) .................................... 2
Major, minor or elective courses

**Third Year**

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>320 Human Growth and Development .............................. 4</td>
</tr>
</tbody>
</table>
| (Prereq: 101 General Psychology)
| 326 School and Society ............................................ 6 |
| (Prereq: 320 Human Growth and Development)
| Methods course in major subject ................................ 2-3 |
| A course in philosophy or religion ............................. 3 |
| Major, minor or elective courses

**Fourth Year**

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>492 Student Teaching ............................................. 8</td>
</tr>
<tr>
<td>418 Seminar in Education ......................................... 2</td>
</tr>
<tr>
<td>405 Guidance Function of Secondary Teacher .................... 2</td>
</tr>
</tbody>
</table>
| Major, minor or elective courses

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**CURRICULUMS FOR TEACHERS OF SPECIALIZED SUBJECTS**

**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 29. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

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

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

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

**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). |

*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.
### Specialized Subjects Curriculums/151

**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

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 29. 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, and not a minimum or maximum number of hours in each Basic Studies area.

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 the courses and 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>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>One laboratory science course from the biology, chemistry, geography or physics departments.</td>
<td></td>
</tr>
<tr>
<td>101 General Psychology.</td>
<td></td>
</tr>
<tr>
<td>368 Mathematical Analysis for Social Sciences I.</td>
<td></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></td>
</tr>
<tr>
<td>Either of the following.</td>
<td></td>
</tr>
<tr>
<td>102 Intermediate Foreign Language.</td>
<td></td>
</tr>
<tr>
<td>112 American Government or 202 State and Local Government.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Humanities</th>
<th>11-12</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>
<tr>
<td>One course in art, music or dramatic arts.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group IV Education</th>
<th>22</th>
</tr>
</thead>
<tbody>
<tr>
<td>302 Educational Psychology.</td>
<td></td>
</tr>
<tr>
<td>303 Principles of Teaching.</td>
<td></td>
</tr>
<tr>
<td>418 Seminar in Education.</td>
<td></td>
</tr>
<tr>
<td>Methods in business subjects (select two).</td>
<td></td>
</tr>
<tr>
<td>364 Methods of Teaching General Business Subjects.</td>
<td></td>
</tr>
<tr>
<td>365 Methods of Teaching Secretarial Subjects.</td>
<td></td>
</tr>
<tr>
<td>466 Methods and Materials in Teaching Distributive Education.</td>
<td></td>
</tr>
<tr>
<td>492 Student Teaching.</td>
<td></td>
</tr>
</tbody>
</table>

---

**Group II Science and Mathematics**

(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 II 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.

One course in art, music or dramatic arts (automatically completed in Group V courses below).

**Group IV Education**

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**

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 Design in Materials. 3

301 Commercial Design. 2

305 Graphics. 3

307 Ceramics. 3

310 Sculpture. 3

313 Oil Painting. 3

314 Water Color. 2

320 Jewelry. 3

Electives. 5

**Group VII Physical Education and Health**

Physical education activity courses (eight activity hours). 4

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

Free electives. 10-5

Total. 124

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

A maximum of 60 semester hours in Group V fine arts courses is allowed.
Group VI Practical Arts

Business Administration Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>215 Computers in Business</td>
<td>3</td>
</tr>
<tr>
<td>240 Principles of Accounting</td>
<td>3</td>
</tr>
<tr>
<td>241 Principles of Accounting</td>
<td>3</td>
</tr>
<tr>
<td>302 Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>303 Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>353 Principles of Finance</td>
<td>3</td>
</tr>
<tr>
<td>360 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>382 Introduction to Management</td>
<td>3</td>
</tr>
<tr>
<td>401 Business Internship</td>
<td>1</td>
</tr>
</tbody>
</table>

Areas of Concentration: Choose Office Education or Distributive Education

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Electives</td>
<td></td>
</tr>
<tr>
<td>Restricted Electives</td>
<td></td>
</tr>
</tbody>
</table>

Office Education

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td></td>
</tr>
<tr>
<td>*222 Office Services</td>
<td>4</td>
</tr>
<tr>
<td>224 Calculator Applications: Business and Personal</td>
<td>3</td>
</tr>
<tr>
<td>395 Office Management</td>
<td>3</td>
</tr>
<tr>
<td>415 Records Administration</td>
<td>2</td>
</tr>
<tr>
<td>Options: Choose one group</td>
<td>9</td>
</tr>
<tr>
<td>Accounting</td>
<td></td>
</tr>
<tr>
<td>340 Intermediate Accounting</td>
<td>3</td>
</tr>
<tr>
<td>341 Intermediate Accounting</td>
<td>3</td>
</tr>
<tr>
<td>344 Tax Accounting</td>
<td>3</td>
</tr>
<tr>
<td>Data Processing</td>
<td></td>
</tr>
<tr>
<td>316 Programming Business Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>415 Design of Computer-Based Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>417 Administration of Computer-Based Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>Shorthand</td>
<td></td>
</tr>
<tr>
<td>*226 Shorthand Dictation</td>
<td>3</td>
</tr>
<tr>
<td>227 Shorthand Speedbuilding</td>
<td>3</td>
</tr>
<tr>
<td>325 Shorthand Transcription</td>
<td>3</td>
</tr>
<tr>
<td>Business Electives</td>
<td>4</td>
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</tbody>
</table>

Distributive Education

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td></td>
</tr>
<tr>
<td>121 Typing Applications</td>
<td>2</td>
</tr>
<tr>
<td>261 Contemporary Selling</td>
<td>3</td>
</tr>
<tr>
<td>363 Principles of Retailing</td>
<td>3</td>
</tr>
<tr>
<td>368 Marketing Strategy</td>
<td>3</td>
</tr>
<tr>
<td>Restricted Electives</td>
<td>8-9</td>
</tr>
<tr>
<td>224 Calculator Applications: Business and Personal</td>
<td>3</td>
</tr>
<tr>
<td>365 Buyer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>395 Office Management</td>
<td>3</td>
</tr>
<tr>
<td>415 Records Administration</td>
<td>2</td>
</tr>
<tr>
<td>461 Sales Management</td>
<td>3</td>
</tr>
<tr>
<td>Business Electives</td>
<td>5-6</td>
</tr>
</tbody>
</table>

Group VII Physical Education and Health

Physical education activity courses (eight activity hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td></td>
</tr>
</tbody>
</table>

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

Curriculum for Teachers of Home Economics

Bachelor of Science Degree

Secondary Provisional Certificate

Vocational Homemaking Certificate

Adviser Chairman, Mary Krieger

All students must complete the required courses in each of the four areas of the Basic Studies and the minimum total 40 semester hours of credit in Basic Studies, as specified in detail on page 29. 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.

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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

No more than two courses in one department

101 or 102 General Psychology

One laboratory science course.

A second laboratory science course or a course in mathematics.

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.

*Students having deficiencies in elementary typewriting and/or beginning shorthand may register for 120 Typewriting Techniques and/or 225 Shorthand Theory in partial fulfillment of general elective requirements. When students possess proficiency equivalent to course requirements in 121 Typewriting Applications and/or 226 Shorthand Dictation these courses will be waived and substitute courses will be included in the curriculum.
Curriculum for Teachers of Industrial Education

**Bachelor of Science Degree**

**Secondary Provisional Certificate**

**Vocational Trade and Industrial Certificate***

A. Advisor Chair, Gerald Jennings

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 29. 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.

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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>Semester Hours</th>
<th>8-9</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Group I Language</th>
<th>12</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>13</th>
</tr>
</thead>
<tbody>
<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></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></td>
</tr>
<tr>
<td>A two-course sequence in 200-level or higher courses in economics, geography, history, or sociology</td>
<td></td>
</tr>
<tr>
<td>Either of the following:</td>
<td></td>
</tr>
<tr>
<td>1.12 American Government or 202 State and Local Government</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Humanities</th>
<th>11-12</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>
<tr>
<td>One course in art, music, or dramatic arts.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group IV Education</th>
<th>22</th>
</tr>
</thead>
<tbody>
<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 Guidance Function of the Secondary School Teacher</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>

<table>
<thead>
<tr>
<th>Group VI Practical Arts</th>
<th>50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Sequence</td>
<td>30</td>
</tr>
<tr>
<td>122 Technical Drawing</td>
<td>3</td>
</tr>
<tr>
<td>116 Elements of Production</td>
<td>3</td>
</tr>
<tr>
<td>121 Graphic Communication</td>
<td>3</td>
</tr>
<tr>
<td>123 Metal Processes</td>
<td>3</td>
</tr>
<tr>
<td>200 Electricity-Electronics I</td>
<td>3</td>
</tr>
<tr>
<td>202 Plastics</td>
<td>3</td>
</tr>
<tr>
<td>218 Energy Systems</td>
<td>3</td>
</tr>
<tr>
<td>250 Foundations of Industrial Education</td>
<td>3</td>
</tr>
<tr>
<td>317 Structure of Industry</td>
<td>2</td>
</tr>
<tr>
<td>350 Curriculum in Industrial Education</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives (must relate to the area of concentration; see adviser for suggested courses) | 1-3 |

*May be recommended upon completion of the requirements given in the Michigan State Plan for Vocational Education, as adopted, 1973.
Area of Concentration .......................... 20

In addition to the basic sequence, each industrial education major will complete a 20-hour concentration in any one of the following areas: materials processing, graphic communication or energy systems. Courses for the concentration will be determined by consultation with a department advisor.

Group VII Physical Education and Health ....... 4
Physical education activity courses (eight activity hours) ................. 4

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

Electives ........................................... 7-3
Total .................................................. 12

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

Minor

Elementary Minor in Industrial Education [20 semester hours]. See page 147.

Arts Group Minor [24 semester hours]. See page 146 under College of Education.

Curriculum for Library Science

Bachelor of Science or Bachelor of Arts Degree

'Elementary or Secondary Provisional Certificate

Adviser Chairman, Henry J. Corbacho

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 29. 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.

<table>
<thead>
<tr>
<th>Area of Concentration</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group I Language</td>
<td>22-25</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>** 207 Introduction to Children's Literature</td>
<td>3</td>
</tr>
<tr>
<td>** 314 Literature for Young Adults</td>
<td>3</td>
</tr>
<tr>
<td>** 406 Storytelling</td>
<td>2</td>
</tr>
<tr>
<td>** 402 General Reference</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>6</td>
</tr>
<tr>
<td>Group II Science and Mathematics</td>
<td>11-12</td>
</tr>
<tr>
<td>(No more than two courses in one department)</td>
<td></td>
</tr>
<tr>
<td>101 or 102 General Psychology</td>
<td>3-4</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>Group III Social Sciences</td>
<td>22</td>
</tr>
<tr>
<td>101, 102 History of Western Civilization</td>
<td>6</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>** 409 History of Books and Libraries</td>
<td>2</td>
</tr>
<tr>
<td>Humanities</td>
<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>
<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 (automatically met by Group V courses below).</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>310 Teaching of Reading or</td>
<td></td>
</tr>
<tr>
<td>311 Teaching Secondary Reading</td>
<td>3</td>
</tr>
<tr>
<td>** 344 Audio-Visual Methods</td>
<td>2</td>
</tr>
<tr>
<td>418 Seminar in Education</td>
<td>2</td>
</tr>
<tr>
<td>495 Student Teaching</td>
<td>4</td>
</tr>
<tr>
<td>498 Student Teaching (Library Practice)</td>
<td>5</td>
</tr>
<tr>
<td>Students working toward a secondary teaching certificate will take, in addition, the methods course in their minor subject field.</td>
<td></td>
</tr>
<tr>
<td>Group V Fine Arts</td>
<td>5-6</td>
</tr>
<tr>
<td>Electives</td>
<td>5-6</td>
</tr>
<tr>
<td>Group VI Practical Arts</td>
<td>9</td>
</tr>
<tr>
<td>** 320 Media Center in the School</td>
<td>3</td>
</tr>
<tr>
<td>** 404 Selection and Use of Materials</td>
<td>3</td>
</tr>
<tr>
<td>** 405 Organization of Materials</td>
<td>3</td>
</tr>
<tr>
<td>Group VII Physical Education and Health</td>
<td>4</td>
</tr>
<tr>
<td>Physical education activity courses (eight activity hours)</td>
<td>4</td>
</tr>
<tr>
<td>Note: Two semester hours of military science may be applied toward this requirement.</td>
<td></td>
</tr>
<tr>
<td>Free electives</td>
<td>32-33</td>
</tr>
<tr>
<td>Total</td>
<td>124</td>
</tr>
</tbody>
</table>

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.

*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 **, an additional 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.

See page 166 for the 20-hour minor in library science.
Curriculum for Teachers of Instrumental Music*

Bachelor of Music Education Degree

Elementary or Secondary Provisional Certificate

Adviser Chairman, William D. Fitch

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 29. 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.

<table>
<thead>
<tr>
<th>Group</th>
<th>Course Details</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Language</td>
<td>8-9</td>
</tr>
<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>II</td>
<td>Science and Mathematics</td>
<td>11-13</td>
</tr>
<tr>
<td></td>
<td>101 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>210 Musical Acoustics</td>
<td>2</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>III</td>
<td>Social Sciences</td>
<td>9-12</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 202 State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>One course in history.</td>
<td></td>
</tr>
<tr>
<td></td>
<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>
<tr>
<td></td>
<td>Humanities</td>
<td>9</td>
</tr>
</tbody>
</table>

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 |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>302 Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>303 Principles of Teaching</td>
<td>3</td>
</tr>
<tr>
<td>332 Instrumental Music in Public Schools</td>
<td>4</td>
</tr>
<tr>
<td>333 Orchestral Methods or 334 Band Methods</td>
<td>2</td>
</tr>
</tbody>
</table>

*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, William D. Fitch

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 29. 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.

<table>
<thead>
<tr>
<th>Group</th>
<th>Course Details</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Language</td>
<td>8-9</td>
</tr>
<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>II</td>
<td>Science and Mathematics</td>
<td>11-13</td>
</tr>
<tr>
<td></td>
<td>101 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>210 Musical Acoustics</td>
<td>2</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>III</td>
<td>Social Sciences</td>
<td>9-12</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 202 State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>One course in history.</td>
<td></td>
</tr>
<tr>
<td></td>
<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>
<tr>
<td></td>
<td>Humanities</td>
<td>9</td>
</tr>
</tbody>
</table>

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 |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>302 Educational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>303 Principles of Teaching</td>
<td>3</td>
</tr>
<tr>
<td>332 Instrumental Music in Public Schools</td>
<td>4</td>
</tr>
<tr>
<td>333 Orchestral Methods or 334 Band Methods</td>
<td>2</td>
</tr>
</tbody>
</table>

**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.
## Semester Hours

<table>
<thead>
<tr>
<th>Group</th>
<th>Language</th>
<th>11-13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group II Science and Mathematics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>101 General Psychology</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>210 Musical Acoustics</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Group III Social Sciences</td>
<td>9-12</td>
<td></td>
</tr>
<tr>
<td>One course in American government selected from:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>112 American Government or 202 State and Local Government</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Group IV Education</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>302 Educational Psychology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>303 Principles of Teaching</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>418 Seminar in Education</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>330 Music Education in the Elementary School</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>331 Music Education in the Secondary School</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>495, 496 Student Teaching</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Group V Fine Arts</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>Basic Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>101, 102 Music Theory-Literature I, II</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>201, 202 Music Theory-Literature III, IV</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>301, 302 History of Music</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>413 Orchestration</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Two of the following courses</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>211 Basic Brass Class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>241 Basic Percussion Class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>261 Basic String Class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>281 Basic Woodwind Class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music Performance</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>Applied Music</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100-300 Applied Music (principal instrument)</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>251-4, 051-2 Applied Music, if keyboard is secondary instrument</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

### 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 29. 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.

### Curriculum for Teachers of Physical Education (Men)

#### Bachelor of Science Degree

**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 29. 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.

<table>
<thead>
<tr>
<th>Group</th>
<th>Language</th>
<th>8-9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Courses</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>101, 102 Music Theory-Literature I, II</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>201, 202 Music Theory-Literature III, IV</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>301, 302 History of Music</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>413 Orchestration</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Two of the following courses</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>211 Basic Brass Class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>241 Basic Percussion Class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>261 Basic String Class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>281 Basic Woodwind Class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music Performance</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>Applied Music</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100-300 Applied Music (principal instrument)</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>251-4, 051-2 Applied Music, if keyboard is secondary instrument</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

*If an elementary provisional certificate is desired, consult with the dean of Academic Records and Teacher Certification or director of Academic Advising regarding special requirements. In Group II, 101 Functional Math is recommended for those seeking elementary certification.*

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.
Curriculum for Teachers of Physical Education
(Women)

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 29. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

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

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other courses specified below. These particular curriculum, major, or minor requirements do specify both courses and the number of hours to be completed. In some cases, courses taken to meet Basic Studies requirements may also meet curriculum, major, or minor requirements.

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

Semester Hours

Group I Language
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
101 General Psychology
105 Biological Science
A second laboratory science course or a course in mathematics.

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.
One course in art, music or dramatic arts.

Group IV Education
302 Educational Psychology
303 Principles of Teaching
367 Methods and Materials in Physical Education
418 Seminar in Education
440 Tests and Measurements in Physical Education
492 Student Teaching

Group VII Physical Education and Health
120 Healthful Living
200 Anatomy and Physiology
203 Kinesiology
263 Theory and Practice of Football
265 Theory and Practice of Baseball
267 Theory and Practice of Basketball
269 Theory and Practice of Track
300 Physiology of Exercise
310 Physiology of Human Performance
311 First Aid and Athletic Training
330 Health Work in the Schools
333 Adapted Physical Education
441 Organization and Administration of Physical Education
Physical education activity courses (see page 174)
Physical education major activity courses (24-25 activity hours)
Free electives (24-25 activity hours)
Total

Group V Education
252 Methods and Materials in Physical Education
302 Educational Psychology
303 Principles of Teaching
418 Seminar in Education
440 Tests and Measurements in Physical Education
492 Student Teaching

Group VII Physical Education and Health
120 Healthful Living

** If an elementary provisional certificate is desired, consult with the dean of Academic Records and Teacher Certification or director of Academic Advising regarding special requirements. In Group II, 102 Functional Math is recommended for those seeking elementary certification.

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.
200 Anatomy and Physiology .................................. 5
204 Kinesiology .................................................. 2
240 History and Philosophy of Physical Education ............. 2
242 Organization and Administration of Physical Education .... 2
264 Theory of Coaching Individual Sports ...................... 3
266 Theory of Coaching Team Sports ........................... 2
300 Physiology of Exercise ..................................... 3
310 Physiology of Human Performance .......................... 2
312 First Aid, Athletic Training and Physical Therapy ......... 2
330 Health Work in the Schools ................................ 2
334 Adapted Physical Education ................................ 2
Physical education major activity courses (43-45 activity hours, see page 174) 4
Free electives .................................................... 31-24
Total ................................................................. 124

Curriculum for Directors and Teachers of Recreation

Bachelor of Science Degree

*Elementary or Secondary Provisional Certificate

Adviser Chairman, Ronald J. Saunders

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 29. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

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

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other courses specified below. These particular curriculum, major, or minor requirements do specify both courses and the number of hours to be completed. In some cases, courses taken to meet Basic Studies requirements may also meet curriculum, major, or minor requirements.

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

Semester Hours

Group I Language .............................................. 8-9
One course in English composition or, if eligible, a foreign language course.
One course in fundamentals of speech.
One elective course in English language, in a foreign language, in speech, or in library 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 ...........................................
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
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 of the following ............................................ 3
100 Introduction to the Theatre
106 Introduction to the Performing Arts or 222 Dramatic Arts for Children

Group IV Education** ...........................................
252 (Women), 367 (Men) Methods and Materials in Physical Education ........... 3
302 Educational Psychology .................................... 3
303 Principles of Teaching ..................................... 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 .......................................... 3
152 Arts and Crafts ............................................. 3
A general course in business .................................. 3

Group VII Physical Education, Health and Recreation ........ 30
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 (25 activity hours) ......... 4
Electives ............................................................ 21-19
Total ................................................................. 124

Curriculum for Teachers of Dance

Bachelor of Science Degree

*Elementary or Secondary Provisional Certificate

Adviser Chairman, Jeaninne Galetti

*If an elementary provisional certificate is desired, consult with the dean of Academic Records and Teacher Certification or director of Academic Advising regarding special requirements. In Group II, 101 Functional Math is recommended for those seeking elementary certification.

The student will complete as a minimum: major in dance as listed above and one minor of 20 semester hours or a group minor of 24 semester hours in a subject field which the student expects to teach.

*If an Elementary Provisional Certificate is desired, consult with the dean of Academic Records and Teacher Certification regarding special requirements.
The dance major is a four year curriculum designed for the student who wishes to pursue a career in dance. The program has as its major emphasis, dance education. 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 performers, dance therapists and arts council staff members. These students are advised to seek a minor which would enhance the major such as drama, music, history, journalism, 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 Advising Office and complete the following:
2. 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 29. 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.

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group I Language ......................................................... 8-9</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).
| Group II Science and Mathematics .................................... 10-12 |
| 101 General Psychology .................................................. 3 |
| 105 Biological Science .................................................. 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 ................................................................. 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. 106 Introduction to the Performing Arts .......................... 3
Group IV Education** ...................................................... 21
252 Methods and Materials in Physical Education .......................................................... 3
302 Educational Psychology .................................................. 3
303 Principles of Teaching .................................................. 3
418 Seminar in Education .................................................... 2
440 Tests and Measurements in Physical Education ......................................................... 2
492 Student Teaching ......................................................... 8
Group VII Physical Education and Health ............................................. 30
107 Rhythmic Analysis and Dance Accompaniment .................................................... 3
200 Anatomy and Physiology .................................................. 5
245 Elements of Dance Composition .............................................. 3
255 Dance Production .......................................................... 3
350 Dance History ............................................................... 3
355 Labanotation ................................................................. 3
450 Advanced Dance Composition ................................................ 4
455 Seminar in Dance ............................................................. 2
Electives: to be chosen from related areas with departmental approval ...................... 4
Dance major studio courses (28 activity hours) see page .............................................. 4
Free electives ......................................................... 26-29
Total ................................................................. 124

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, Frank J. Wawrzaszek

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 29. 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.

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group I Language ......................................................... 11-12</td>
</tr>
<tr>
<td>One course in English composition or, if eligible, a foreign language course.</td>
</tr>
</tbody>
</table>

**These courses are optional: required only if desiring a teaching certificate.
One course in fundamentals of speech.
One elective course in English language, in a foreign language, in speech, or in library science (Group I).

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>207 Introduction to Children's Literature</td>
<td>3</td>
</tr>
<tr>
<td>Group II Science and Mathematics</td>
<td>15</td>
</tr>
<tr>
<td>101 Functional Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>One laboratory science course</td>
<td></td>
</tr>
<tr>
<td>*101 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>*206 Mental Hygiene</td>
<td>2</td>
</tr>
<tr>
<td>*360 Abnormal 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>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>3</td>
</tr>
<tr>
<td>202 State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td>*202 Social Problems</td>
<td></td>
</tr>
</tbody>
</table>

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 arts, music or dramatic arts (automatically met by Group V courses below).

Group IV Education

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>*251 Education of Exceptional Child</td>
<td>2</td>
</tr>
<tr>
<td>303 Principles of Teaching</td>
<td>3</td>
</tr>
<tr>
<td>310 Teaching of Reading</td>
<td>3</td>
</tr>
<tr>
<td>320 Human Growth and Development</td>
<td>4</td>
</tr>
<tr>
<td>*344 Audio Visual Methods in Teaching</td>
<td>2</td>
</tr>
<tr>
<td>381 Teaching Math K-12</td>
<td>3</td>
</tr>
<tr>
<td>*390 Measurement and Diagnosis in Special Education</td>
<td>2</td>
</tr>
<tr>
<td>**415 Seminar in Education</td>
<td>2</td>
</tr>
<tr>
<td>Student Teaching</td>
<td>5-12</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>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>
</tbody>
</table>

Group VI Practical Arts

<table>
<thead>
<tr>
<th>Course</th>
<th>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>
</tbody>
</table>

Group VII Physical Education and Health

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>*320 Health Education in Public Schools</td>
<td>2</td>
</tr>
<tr>
<td>Physical education activity courses (eight activity hours)</td>
<td>4</td>
</tr>
<tr>
<td>Two semester hours of military science may apply toward this requirement. All students take eight physical education activity hours. Courses must include PEC 157 Physical Education for Classroom Teacher.</td>
<td></td>
</tr>
</tbody>
</table>

Electives ............................................. (to complete 124 hours) 124

*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.

### Major Concentration

#### A. Hearing Impaired

- 228 Survey of Education and Guidance of the Hearing Impaired 2
- 326 Introductory Practicum with the Hearing Impaired I 1
- 327 Introductory Practicum with the Hearing Impaired II 1
- 336 Anatomy and Physiology of the Speech and Hearing Mechanisms 3
- 375 Introduction to Audiology 2
- 391 Language for the Hearing Impaired 4
- 394 Auditory Training and Speech Reading for the Hearing Impaired 2
- 395 Speech for the Hearing Impaired I 2
- 396 Speech for the Hearing Impaired II 2
- 397 School Subjects for the Hearing Impaired 4
- 442 Hearing Impaired Seminar 2

#### B. Emotionally Impaired

- 240 Pre-Clinical Training in Special Education 2
- 241 Introduction to Speech Pathology 2
- 301 Emotionally Impaired Children 4
- 354 Juvenile Delinquency (or approved substitute) 3
- 401 Methods and Curriculum for the Emotionally Impaired 2
- 402 Education and Organization of Programs for the Emotionally Impaired 2
- 445 Seminar in Emotionally Impaired 2

#### C. Mentally Impaired

- 240 Pre-Clinical Experience 2
- 241 Introduction to Speech Pathology 2
- 350 Mental Deficiency 2
- 355 Educational Programs and Classroom Management for Exceptional Children 4
- 356 The Trainable and Severely Retarded Child 3
- 357 Elementary Education of Mentally Impaired or 358 Secondary Education of Mentally Impaired 2
- 465 Learning Disabilities 2

#### D. Physically and Otherwise Health Impaired

- 240 Pre-Clinical Training in Special Education 2
- 241 Introduction to Speech Pathology 2
- 310 Developmental Aspects of Teaching Physically Impaired Children (lab required) 5
- 312 Applied Aspects of Teaching Physically Impaired Children (lab required) 5
- 350 Mental Deficiency 2
- 446 Seminar in Physically Impaired 2
- 468 Children With Learning Disabilities 2

#### E. Visually Impaired

- 241 Introduction to Speech Pathology 2
- 364 Methods of Teaching the Blind 3
- 365 Braille 3
- 366 Hygiene and Anatomy of the Eye 2
- 367 Education of Children With Impaired Vision 2
- 368 Mobility Training for the Visually Impaired 2

(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 the pages 144 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 before embarking on an arts group minor. Such minors as psychology, sociology, economics, chemistry and physics are not acceptable minors for special education with elementary certification. Students majoring in the emotionally impaired, visually impaired, or physically impaired cannot have a "planned program in substantive fields" as their teaching minor.

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. Activity hours to satisfy physical education requirements are taken in addition to the normal academic load.

Students in the area of the visually impaired may do their student teaching at either the Michigan School for the Blind (usually during the eighth semester) or at other public school resident centers. When residence is required in off-campus center programs, early planning will be to the student's advantage. Off-campus centers are also available for students who plan to take campus courses concurrently with the student teaching experience.

Students in the area of the emotionally impaired may elect to do their student teaching in one of the off-campus psychiatric centers, or, if interested primarily in socially maladjusted children, may request a student teaching assignment in one of the off-campus centers such as the Boys Vocational School in Lansing, or the Girls' Training School in Adrian. Prerequisites for the student teaching in the area of the Emotionally Impaired include 240 Pre-Clinical Training, 301 Emotionally Disturbed Child and 360 Abnormal Psychology.

Students may declare themselves to be 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, SDH 228, and SPA 341. The program requires a minimum of six semesters in the major area. See an adviser in the Program for details.

Curriculum for Teachers of the Speech and Language Impaired

Bachelor of Science Degree

Master of Arts Degree

Elementary Provisional Certificate

Adviser Chairman. Frank J. Wawrzaszek

The program for teachers of speech and language impaired is a five-year master's degree program, conforming to the requirements of the American Speech and Hearing Association. Upon completion of 124 credit hours (reflecting all requirements in basic studies and undergraduate major and minor sequences), the student will be granted the Bachelor of Science degree, without certification.

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 29. 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.

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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>Semester Hours</th>
<th>Group I Language</th>
<th>One course in English composition or, if eligible, a foreign language course.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>One course in fundamentals of speech.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(302 Modern English Syntax in major below)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>207 Introduction to Children's Literature</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Group II Science and Mathematics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>One laboratory science course</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>101 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>206 Mental Hygiene</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>360 Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Group III Social Sciences</td>
<td></td>
</tr>
<tr>
<td></td>
<td>One history course</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>105 Introductory Sociology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Either of the following:</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></td>
</tr>
<tr>
<td></td>
<td>202 Social Problems</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities</td>
<td>9</td>
</tr>
<tr>
<td></td>
<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>
</tbody>
</table>

Group IV Education | |

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>251 Education of Exceptional Child</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>303 Principles of Teaching</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>310 Teaching of Reading</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>320 Human Growth and Development</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>344 Audio Visual Methods in Teaching</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>390 Measurement and Diagnosis in Special Education (or approved substitute)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>495 Student Teaching in Regular Classroom</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Group V Fine Arts</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>101 Introduction to Art</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>104 Elements of Music</td>
<td>2</td>
</tr>
</tbody>
</table>

Group VII Physical Education and Health | |

| Semester Hours | Physical education activity courses (eight activity hours) | 4 |

Note: Two semester hours of military science may be applied toward this requirement. All students must take eight physical education activity hours. Courses must include PEC 157 Physical Education for Classroom Teacher.

<table>
<thead>
<tr>
<th>Major Concentration</th>
<th>243 Applied Phonetics</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>302 Modern English Syntax</td>
<td>3</td>
</tr>
</tbody>
</table>

(English Department) | 336 Anatomy and Physiology of the Speech and

Specialized Subjects Curriculums/161
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, 320 Human Growth and Development, and 321 Child Psychology may be taken by students of sophomore standing.

CURRICULUM AND INSTRUCTION

Department Head: W. Scott Westerman, Jr.
Association Professors: Leah D. Adams, Irene A. Allen, Clifford Brileson, Henry F. Corbacho, Juanita M. Garfield, Robert H. Hoexter, Hebert M. Jones, Gerald A. McIntosh, Noel S. Moore, Leon E. Nebb, Jerome A. Weiser
Assistant Professors: Gordon A. Belt, Arthur L. Carpenter, Victor Cocco, William E. Goldsmith, Emilie F. Gosseaux, Ben J. Koepke, Alister MacDonald, Jean O. Scott, Robert T. Tibbals

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 154.

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, and educational media. (See page 146 to 147.)

Specific curricular patterns by semester are provided each student by an assigned 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. Activity hours to satisfy physical education requirements are taken in addition to the normal academic load.

A speaking performance test must be taken during the sophomore year or while enrolled in 339 Speech Evaluation, whichever occurs first. The purpose of this test is to determine if there is any speech disorder that would interfere with a successful career in speech and language pathology. This speech performance test is more vigorous than, and may be used in lieu of the screening test required as part of the application for student teaching.

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.

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.)

252 (Women) Methods and Materials in Physical Education. Three sem hours A study of the methods and the use of materials used in the teaching of indoor activities. Opportunity is given to do practice teaching and to receive constructive criticism. Observations and reports of the work carried on in the laboratory schools are required.

Master of Arts Sequence

<table>
<thead>
<tr>
<th>Area of Concentration</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses:</td>
<td></td>
</tr>
<tr>
<td>SPA 550 Articulation</td>
<td>2</td>
</tr>
<tr>
<td>SPA 552 Voice</td>
<td>2</td>
</tr>
<tr>
<td>SPA 554 Stuttering</td>
<td>2</td>
</tr>
<tr>
<td>SPA 594 Public School Internship</td>
<td>4</td>
</tr>
<tr>
<td>SPA 596 Seminar in Public School Internship</td>
<td>2</td>
</tr>
<tr>
<td>SPA 568 Diagnostic Methods in Speech, Hearing and Language</td>
<td>3</td>
</tr>
<tr>
<td>Electives in speech education and education</td>
<td>9</td>
</tr>
<tr>
<td>Cognates</td>
<td>6</td>
</tr>
<tr>
<td>EDP 592 Research Techniques</td>
<td>2</td>
</tr>
<tr>
<td>Electives outside of special education</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
</tr>
</tbody>
</table>

Other Requirements: Scholarly paper or independent study. Consult with the graduate adviser for details.

Students will complete a minimum a major concentration of 30 semester hours and one minor subject of 20 semester hours or a group minor of 24 hours.

Group minors are acceptable on the Special Education curriculum. (See pages 146 to 147.)

A speaking performance test must be taken during the sophomore year or while enrolled in 339 Speech Evaluation, whichever occurs first. The purpose of this test is to determine if there is any speech disorder that would interfere with a successful career in speech and language pathology. This speech performance test is more vigorous than, and may be used in lieu of the screening test required as part of the application for student teaching.

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.
202 Elementary School Science. Three sem hours  
(For description see Department of Biology.)

203 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. Diagnosis, 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 stu-
dents 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 develop-
mental sequence of reading skills and with methods for teach-
ing 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 lan-
guage 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 obser-
vation and experience with children required. Not open to 
students who have had 303 Principles of Teaching. 
Prereq: 320 Human Growth and Development.

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.)

364 Methods of Teaching General Business Subjects. Two sem hours  
(For description see Department of Administrative Services 
and Business Education.)

365 Methods of Teaching Secretarial Subjects. Two sem hours  
(For description see Department of Administrative Services 
and Business Education.)

367 (Men) Methods and Materials in Physical Education. Three sem hours  
A study of the techniques and aids used in teaching physical 
education activities in the elementary and secondary grades.

371 Methods and Materials in Homemaking Education. Three sem hours  
(For description see Department of Home Economics.)

375 Methods and Materials in Family Life Education. Three sem hours  
(For description see Department of Home Economics.)

381 The Teaching of Mathematics K-6. Three sem hours  
(For description see Department of Mathematics.)

403 Current Research in Elementary School Mathematics. Three sem hours  
(For description see Department of Mathematics.)

403 Methods and Materials for Teaching Biology. Two sem hours  
(For description see Department of Biology.)

411 Methods of Teaching Modern Languages. Two sem hours  
(For description see Department of Foreign Languages and 
Literature.)

412 Methods of Teaching Modern Languages in the 
Elementary Grades. Two sem hours  
(For description see Department of Foreign Languages and 
Literature.)

415 Directed Observation. Two sem hours  
Summer session on demand.

416 Art Methods and Materials. Two sem hours  
(For description see Department of Art.)

417 Teaching of Art. Two sem hours  
(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.

419 Instructor's Course in Driver Education. Three sem hours  
Introduction to driver education; the task of the driver edu-
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. Effective July 1, 1972, 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 Education.)

461 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 oral report. Prereq: Senior standing, 3.5 average and all regulations regarding honors courses stated on page 19. 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. The student teacher is expected to assume increasing responsibility for directing the activities of the classroom group to the point that during the semester he will be expected to assume full responsibility. For eight semester hours of student teaching the student teacher is required to spend 20 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 143), requirements for admission to courses in education (see page 164) plus prerequisites as follows in designated curricula.

a. Early Elementary: Two of the methods courses. (310 Teaching of Reading, 381 Teaching of Mathematics or 302 Elementary School Science.)


c. Junior-Senior High School: A special methods course in major and 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 increased demand for school librarians in the elementary and secondary schools. Election may be made with the approval of the adviser.

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 as 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).

Major and Minor

Major

For required courses for a major in library science, see the curriculum for library science planned for specializing students on page 154.

At least nine semester hours must be taken at Eastern from courses on page 165 from Group VI.

Minor (20 semester hours)

Semester Hours

Required courses:

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>207 Introduction to Children's Literature</td>
<td>3</td>
</tr>
<tr>
<td>314 Literature for Young Adults</td>
<td>3</td>
</tr>
<tr>
<td>320 The Media Center in the School</td>
<td>3</td>
</tr>
<tr>
<td>402 General Reference</td>
<td>3</td>
</tr>
<tr>
<td>404 Selection and Use of Materials</td>
<td>3</td>
</tr>
<tr>
<td>405 Organization of Materials</td>
<td>3</td>
</tr>
<tr>
<td>406 Storytelling</td>
<td>2</td>
</tr>
<tr>
<td>409 History of Books and Libraries</td>
<td>2</td>
</tr>
<tr>
<td>430 Special Problems of the School Library</td>
<td>2</td>
</tr>
<tr>
<td>496 Student Teaching (Library Practice)</td>
<td>4</td>
</tr>
</tbody>
</table>

*These are four of the eight hours of student teaching.
For physical science majors electing a library science minor, 471 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 from courses in Group VI.

Courses

300 Library Orientation.

One sem hour

A study of the resources of the University library, including basic reference tools, such as the card catalog, periodical indexes and yearbooks. For non-library science majors and minors only.

301 Use of Books and Libraries. Two sem hours (Group I)

Open to any student who wants practical instruction in the use of the library's tools and materials. May not be taken by students who plan to major or minor in library science. On demand.

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: 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.
EDUCATION

Department Head: Francis M. Daly, Jr.
Professors: Thomas M. Gwaltney, Roger L. Leatherman, Calvin B. Michael, Thomas O. Monahan, Erma F. Muckenhirn, Quirico S. Samonte, Phillip G. Wells
Associate Professors: Robert S. Robinson, Wilfred R. Smith

GRADUATE STUDY

The Education Department offers graduate work leading to the master’s degree in social foundations. For descriptions of graduate courses and programs in the Education Department, please consult the Graduate Catalog.

COURSES

(These courses were formally listed under “Social Foundations”)

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.

See Graduate Catalog for further course listings.

EDUCATIONAL LEADERSHIP

Department Head: Kenneth L. Grinstead
Professors: George J. Brower, Francis M. Daly, Elven E. Duval, Bruce K. Nelson
Associate Professors: Donald R. Fox, Jack D. Minzey
Assistant Professors: Doris M. Kilanski, William F. Kromer, Clyde E. LeTarte

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.

EDUCATIONAL PSYCHOLOGY

Department Head: Wilbur A. Williams
Professors: Anton Brenner, Eugene E. Hadden, Everett L. Marshall, Israel Wronoff
Associate Professors: Marie Delas, Wallace D. LaBenne, Edward Lederman, John W. Metler, Kishor N. Wahi, Warren S. Williams
Assistant Professors: John R. Blair, James T. Bushey, Louise F. Jernigan, Mildred Kaminsky, Judy A. McKee

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 Office of Academic Advising.

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 interpersonal 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.

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
Associate Professors: Gary M. Miller, Paul A. Nau, Kenneth W. Stanley, Louis C. Thayer, Benjamin W. Van Riper
Assistant Professors: Kent D. Beeler, Hugh P. Gaston, John W. Waidley

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

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 325 School and Society; non-education majors by permission of the department.

HEALTH, PHYSICAL EDUCATION AND RECREATION

Department Head: Patric L. Cavanaugh
Professors: John R. Adams, Elizabeth A. Menzi, John E. Sheard, Peggy A. Steig
Associate Professors: Mary J. Bell, Marguerite E. Grills, Marvin J. Johnson, Erik J. Pedersen, Fred Trosko, Roger L. Williams, Robert J. Willoughby, Charles X. Witter
Instructors: Margaret E. Bell, Penny Hackett, Carole J. Huston, Judith M. Marr, Janet C. McDowell, Susan Rose, Gary Strickland

GRADUATE STUDY

The Health, Physical Education and Recreation 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

The health education minor is designed to provide minimal 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>Required courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological Science</td>
<td>150 Scientific Foundations of Health Education</td>
</tr>
<tr>
<td>Behavioral Science</td>
<td>105 Introductory Sociology</td>
</tr>
<tr>
<td></td>
<td>204 Marriage and Family</td>
</tr>
<tr>
<td></td>
<td>312 Child Psychology or 322 Psychology of Adolescence</td>
</tr>
<tr>
<td>Professional Health Education</td>
<td>250 Psychosocial Concepts of Health</td>
</tr>
<tr>
<td></td>
<td>320 Health Education for Elementary Grades or 330 Health Work in the Schools</td>
</tr>
<tr>
<td></td>
<td>430 Community Health Resources</td>
</tr>
</tbody>
</table>

Electives as approved by health education advisers.

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.
PHYSICAL EDUCATION

Major

For required courses for a major in physical education, see curriculum for teachers of physical education, for specializing students only, page 156.

Minor (men) (20 semester hours) Designed for those who want to coach but not teach physical education.

Semester Hours

<table>
<thead>
<tr>
<th>Required courses</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>203 Kinesiology</td>
<td>2</td>
</tr>
<tr>
<td>Three of the following four courses:</td>
<td>3</td>
</tr>
<tr>
<td>263 Theory and Practice of Football</td>
<td>1</td>
</tr>
<tr>
<td>265 Theory and Practice of Baseball</td>
<td>1</td>
</tr>
<tr>
<td>267 Theory and Practice of Basketball</td>
<td>1</td>
</tr>
<tr>
<td>269 Theory and Practice of Track</td>
<td>1</td>
</tr>
<tr>
<td>311 Athletic Training</td>
<td>2</td>
</tr>
<tr>
<td>367 Methods and Materials in Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>441 Organization and Administration of Physical Education</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives from Group VII

Semester Hours

<table>
<thead>
<tr>
<th>Activity Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-16</td>
</tr>
</tbody>
</table>

RECREATION

Major

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.

For required courses for a major in recreation, see curriculum for directors and teachers of recreation, page

Semester Hours

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>270 Organization and Administration of Community Recreation</td>
<td>3</td>
</tr>
<tr>
<td>252 or 367 Methods and Materials in Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>280 Camping</td>
<td>2</td>
</tr>
<tr>
<td>380 Community Recreation Leadership</td>
<td>3</td>
</tr>
<tr>
<td>480 Recreation Therapy</td>
<td>2</td>
</tr>
<tr>
<td>*Electives</td>
<td>7</td>
</tr>
</tbody>
</table>

Activity Hours

<table>
<thead>
<tr>
<th>Physical Education Activity Courses:</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>P31 or P34 Service Teaching</td>
<td>2</td>
</tr>
<tr>
<td>Major elective classes</td>
<td>12</td>
</tr>
</tbody>
</table>

*See coordinator of recreation education for list of acceptable electives.
DANCE

Major

For required courses for a major in dance: see curriculum for teachers of dance, page 158.

Minor (20 semester hours)

Students planning admission to the dance minor should complete the following:

1. An application at the Dance Office, 108 Warner Gymnasium
2. Technical assessment in modern dance and ballet
3. A course of study planned with a dance adviser

Theory Courses

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>106 Introduction to the Performing Arts</td>
<td>3</td>
</tr>
<tr>
<td>107 Rhythmic Analysis and Dance Accompaniment</td>
<td>3</td>
</tr>
<tr>
<td>245 Elements of Dance Composition</td>
<td>3</td>
</tr>
<tr>
<td>350 Dance History</td>
<td>3</td>
</tr>
<tr>
<td>Two of the following courses</td>
<td>5-7</td>
</tr>
<tr>
<td>255 Dance Production</td>
<td>3</td>
</tr>
<tr>
<td>355 Labanotation</td>
<td>3</td>
</tr>
<tr>
<td>450 Advanced Dance Composition</td>
<td>4</td>
</tr>
</tbody>
</table>

(with dance division approval)

455 Dance Seminar 2

Electives to be chosen from dance or related areas with dance division approval 20 hours

Studio Courses

<table>
<thead>
<tr>
<th>Activity Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>124 Folk Dance</td>
</tr>
<tr>
<td><strong>Three of the following courses:</strong></td>
</tr>
<tr>
<td>116 Modern Dance I</td>
</tr>
<tr>
<td>120 Modern Dance II</td>
</tr>
<tr>
<td>132 Modern Dance III</td>
</tr>
<tr>
<td>150 Modern Dance IV</td>
</tr>
<tr>
<td><strong>One of the following courses:</strong></td>
</tr>
<tr>
<td>160 Ballet I</td>
</tr>
<tr>
<td>260 Ballet II</td>
</tr>
</tbody>
</table>

Electives to be chosen from other dance courses (20-21)

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

*Technical assessment will determine class placement.

and muscles and the organs of digestion, respiration and excretion.

203 (Men), 204 (Women) 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, texts and practice work in first aid. A certificate is awarded to each student completing the course. Persons enrolling in this course may not take 311 or 312 First Aid, Athletic Training and Physiotherapy.

240 History and Philosophy of Physical Education. Three 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.

242 (Women) 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.

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: P16 Modern Dance I.

252 (Women) Methods and Materials in Physical Education and Recreation. Three sem hours

(See Education)

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, costumes and stage make-up. Laboratory projects will be coordinated with dance productions.

261 (Men) Techniques of Officiating. Two sem hours

A study of the rules and techniques of officiating several interscholastic sports.

262 (Women) Techniques of Officiating. 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 (Men) 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: survey of D.G.W.S. policies concerning participation and competition, place of programs, lesson plans, unit plans, panel discussions, discussion of techniques and strategies of advanced play, organization of a large class, evaluation of current literature pertinent to each activity.
Prereq: P 14 Badminton and Tennis, P 42 Golf and Bowling.

265 *(Men)* **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 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: P 12 Hockey and Volleyball, P 40 Basketball and Softball, P 52 Track and Field and Field Sports.

267 *(Men)* **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 *(Men)* **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.

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 relations to the effects of bodily exercise.
Prereq: 200 Anatomy and Physiology (for physical education majors).

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 educa-

311 *(Men), 312 *(Women)* **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 (for physical education majors).

333 *(Men), 334 *(Women)* **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.

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. P 16, P 20 Modern Dance I and II.

367 *(Men)* **Methods and Materials in Physical Education and Recreation.** Three sem hours
(See Education)

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.

440 **Tests and Measurements in Physical Education.** Two sem hours
(See Education)

441 *(Men)* **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 majoring in dance.

Prereq: 107 Rhythmic Analysis and Dance Accompaniment and P 50 Modern Dance IV.

455 Seminar in Dance. Two sem hours
A lecture-discussion course designed for the review of current literature and dance research, the study of trends in dance education and the analysis of developments in contemporary concert dance.

Prereq: 350 History of Dance, 450 Advanced Dance Composition or permission of the department.

470 Field Work in Recreation. Four sem hours
Practical experience under supervision in a recreation program directing activities and learning about the administration and supervision of programs. The student would be required to spend at least 10 clock hours per week in the recreation center. Not open to students seeking a teaching certificate.

Prereq: Permission of the department.

480 Recreation Therapy. Two sem hours
Designed to assist occupational therapists and majors in recreation in the performance of recreational skills required in hospital programs. The following areas are given attention: music as recreation and recreation through games and sports. Field trips to nearby hospitals.

490 Organization and Planning of School and Community Programs. Two sem hours
A study of the problems involved in organizing and program planning for school assemblies, playdays, carnivals, circuses, demonstrations, swimming pageants and community pageants. Deals with the selection of themes, costuming, musical accompaniment and other factors involved in such programs.

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 members for direction, consultation and evaluation of the completed study or project. Open only to department majors and minors who have attained junior status, with a grade point average of 3.0 or above and who have completed the appropriate background courses.

Prereq: Permission of the department.

MAJOR ACTIVITY COURSES

The importance of physical education activity classes lies in their contribution to such educational objectives as organic development, neuromuscular coordination, social efficiency, and the preparation of teachers and athletic coaches in the elementary and secondary fields of public schools.

Activity Courses for Women Majoring in Physical Education and Recreation

Women students majoring in physical education or recreation must complete the following activity courses and are required to do four to five hours service teaching.

Activity Courses for Men Majoring in Physical Education and Recreation

Men students majoring in physical education must complete a minimum of 16 hours of selected major activities plus 8 hours of service teaching. The activity classes may be
taken in any sequence but should be completed during the freshman and sophomore years. Service teaching is an outgrowth of these classes and should be taken during the junior and senior years, but prior to student teaching. Major students are required to wear the regulation uniform.

Required Major Activity Classes:
P115 Gymnastics ........................................ 3
P117 Rhythms and Games ................................. 3
P121 Individual and Team Sports ...................... 3
P123 Wrestling ............................................. 2
P129 Aquatics ............................................. 3
Elective Major Activity Classes (select one)
C010 Couple, Square and Ballroom Dancing ........ 3
P135 Advanced Gymnastics ............................... 2
P136 Water Safety Instructor's Course ................ 2

Required Service Teaching:
P131 Service Teaching .................................... 2
P133 Service Teaching .................................... 2
P141 Service Teaching .................................... 2
P143 Service Teaching .................................... 2

ACTIVITY COURSES FOR GENERAL STUDENTS

The physical education activity requirement is explained on page 17 in this catalog. Additional information may be obtained in the Department Office in Room 235 Warner Gymnasium.

Students are required to wear apparel appropriate to safe and efficient participation in the particular course activity. This apparel is available in the University Bookstore. It is also required that students enrolled in these courses pay a locker and towel fee. This fee is assessed at the time of registration.

Students may not repeat activity courses for activity credit unless approved by the head of the department.

Co-educational Activity Courses

The following courses are open to both men and women students. Additional courses open only to either men students or women students are listed under the appropriate headings.

Activity Courses for Men

<table>
<thead>
<tr>
<th>Activity</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>120 Physical Education I</td>
<td>2</td>
</tr>
<tr>
<td>126 Conditioning Activities</td>
<td>2</td>
</tr>
<tr>
<td>128 Wrestling and Judo</td>
<td>2</td>
</tr>
<tr>
<td>130 Physical Education II</td>
<td>2</td>
</tr>
<tr>
<td>220 Varsity Rifle Team</td>
<td>2</td>
</tr>
<tr>
<td>230 Varsity Cross Country</td>
<td>2</td>
</tr>
<tr>
<td>231 Varsity Football</td>
<td>2</td>
</tr>
<tr>
<td>232 Varsity Basketball</td>
<td>2</td>
</tr>
<tr>
<td>233 Varsity Swimming</td>
<td>2</td>
</tr>
<tr>
<td>234 Varsity Gymnastics</td>
<td>2</td>
</tr>
<tr>
<td>235 Varsity Wrestling</td>
<td>2</td>
</tr>
<tr>
<td>236 Varsity Track</td>
<td>2</td>
</tr>
<tr>
<td>237 Varsity Baseball</td>
<td>2</td>
</tr>
<tr>
<td>238 Varsity Golf</td>
<td>2</td>
</tr>
<tr>
<td>239 Varsity Tennis</td>
<td>2</td>
</tr>
<tr>
<td>240 Precision Drill Team</td>
<td>2</td>
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</tbody>
</table>

Activity Courses for Women

<table>
<thead>
<tr>
<th>Activity</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>101 Fundamental Activity</td>
<td>4</td>
</tr>
<tr>
<td>109 Basketball</td>
<td>2</td>
</tr>
<tr>
<td>111 Volleyball</td>
<td>2</td>
</tr>
<tr>
<td>117 Synchronized Swimming</td>
<td>3</td>
</tr>
<tr>
<td>119 Gymnastics</td>
<td>2</td>
</tr>
<tr>
<td>231 Varsity Field Hockey</td>
<td>2</td>
</tr>
<tr>
<td>232 Varsity Basketball</td>
<td>2</td>
</tr>
<tr>
<td>233 Varsity Swimming</td>
<td>2</td>
</tr>
<tr>
<td>234 Varsity Gymnastics</td>
<td>2</td>
</tr>
<tr>
<td>235 Varsity Softball</td>
<td>2</td>
</tr>
<tr>
<td>239 Varsity Tennis</td>
<td>2</td>
</tr>
<tr>
<td>240 Varsity Volleyball</td>
<td>2</td>
</tr>
<tr>
<td>241 Varsity Synchronized Swimming</td>
<td>2</td>
</tr>
</tbody>
</table>

INTERCOLLEGIATE ATHLETICS FOR WOMEN

The Intercollegiate Athletic Program for Women is organized within the Department of Health, Physical Education and Recreation. Participation is open to all women students who have an interest and ability in those activities offered.

*Open to card carrying Red Cross WSI's whose appointments have lapsed and persons holding current Senior Life Saving certificates. ARC WSI cards will be issued to those completing course satisfactorily.

**Note: Not elective. Students found by physical examination to be in need of this course are assigned by the University physician.
At the present time, the intercollegiate competitive program for women includes:

- Field Hockey
- Basketball
- Volleyball
- Softball
- Tennis
- Speedswimming
- Gymnastics
- Synchronized Swimming

**INTRAMURAL SPORTS FOR MEN AND WOMEN**

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

### Co-Educational

<table>
<thead>
<tr>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross Country</td>
<td>Track</td>
</tr>
<tr>
<td>Softball</td>
<td>Wrestling</td>
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<tr>
<td>Tennis</td>
<td>Swimming</td>
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<tr>
<td>Inner-Tube Water Polo</td>
<td></td>
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<tr>
<td>Bowling</td>
<td></td>
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<tr>
<td>Basketball</td>
<td></td>
</tr>
<tr>
<td>Free Throw Contest</td>
<td></td>
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<tr>
<td>Paddleball</td>
<td></td>
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<tr>
<td>Horseshoes</td>
<td></td>
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<tr>
<td>Flat-A-Thon</td>
<td></td>
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</tbody>
</table>

### Men only

- Soccer
- Ice Hockey

### Women only

- Basketball
- Gymnastics
- Tennis

### Men only Co-educational

- Sailing
- Scuba
- Snow Skiing
- Fencing
- Badminton
- Trap and Skeet

### Women only

- Golf
- Bowling
- Volleyball
- Track

**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 the following sports:

### Men only

- Soccer
- Ice Hockey

### Co-educational

- Sailing
- Scuba
- Snow Skiing
- Fencing
- Badminton
- Trap and Skeet

### Women only

- Basketball
- Gymnastics
- Tennis

**SPECIAL EDUCATION**

Department Head: Frank J. Wawrzaszek

Professors: Angelo A. Angelocci, C. Wayne Fulton, Henry L. Gottwald, Joseph J. Motto, Allen Myers


Instructors: Lawrence M. Bemish, Joan Bowe, Sharon R. Burnham, Marla J. Gousseff, Nina B. Homel, Arlene E. Post, Lee F. Shough.

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.

**HORACE H. RACKHAM SCHOOL OF SPECIAL EDUCATION**

This campus laboratory school and the contemporary philosophy of its faculty affords students a unique opportunity to gain practical as well as theoretical experience in all areas of special education. The Rackham School accommodates more than 100 children with various kinds of handicaps.

Disciplines represented on the staff include classroom teaching, physical therapy, occupational therapy, speech therapy, audiology, psychology and medicine. Moreover, the department maintains liaison for internships for student teaching with almost every state institution in Michigan accommodating children.

**SPEECH AND HEARING CLINIC**

The Speech and Hearing Clinic is maintained in the Rackham School 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 counselling. 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.
PARENT COUNSELING CLINIC
FOR THE HEARING IMPAIRED

The purpose of this program is to provide guidance to the parents of the deaf and hard of hearing children, enabling them to help their child to attain language development during the formative years. Our aim being to establish cooperation between the home and the school, parent participation in the program is required.

Parents will have an opportunity to learn how they might help their child develop speech and speech reading skills. They will explore the techniques of auditory training and the use of hearing aids. Time will be given to the observation of staff members working with their child, and the parents will be able to discuss problems concerning the child with staff members.

MAJOR AND MINOR

Major:

For required courses for a major in special education, see pages 158 to 159 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. The test battery of tests must be completed before the student does his special student teaching.

Minor:

Semester Hours

206 Mental Hygiene ............................ 2
251 Education of Exceptional Children .... 2
Electives (must have approval of adviser) .... 16

The student who wishes to take a minor in special education must obtain, in advance, the approval of the head of the department.

Minors will be restricted to those students receiving a Michigan Provisional Certificate, having a major in home economics, physical education or recreation, industrial education and music education.

AFFILIATIONS

In order to give students specializing in special education an acquaintance with the broad problems of the field, visits for observation and study will be made to special schools and classes and to the following state institutions and services:

The Wayne County Training School at Northville
The Michigan Home and Training School at Lapeer
The Michigan School for the Deaf at Flint
The Michigan School for the Blind at Lansing
The Boys’ Vocational School at Lansing and Whitmore Lake

The Girls’ Training School at Adrian
The University Hospital School at Ann Arbor
The Ypsilanti State Hospital
The Huron Valley Children’s Center, Ypsilanti
The Hawthorn Center, Northville
The Children’s Psychiatric Hospital, Ann Arbor
Public schools in this area
Plymouth State Home and Training School, Northville
Detroit Day School for the Deaf, Detroit

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 Education)

228 Survey of Education and Guidance of the Hearing Impaired. Two sem hours
Designed to cover the history of the education of the deaf including an overview of the current educational programming. The second half of the course deals with problems of parent counseling, social and psychological adjustment of the deaf and vocational training and habilitation.

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 the student 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 and physically impaired will complete 120 hours of experience before the end of their junior year; 10 hours of which should be completed as a freshman. See your 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. Two sem hours
The use of I.P.A. symbols for transcription of speech. Emphasis will be placed on analysis of deviant speech. Intended primarily for majors in speech correction.

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 Handicapped 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 habilitation of physically impaired children. Two one-hour laboratory periods are required per week.
Prereq: 251 Education of Exceptional Children and 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 additional clock hours supervised observation and work with the deaf and hard of hearing. Emphasis is placed on understanding the physical processes of speaking and listening as dynamic, interdependent processes. Lab required.
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.

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.
Prereq: 241 Introduction to Speech Pathology, 243 Applied Phonetics and 336 Anatomy and Physiology of the Speech and Hearing Mechanisms.

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 articulatory problems, stuttering, language impairment and functional voice disorders.
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. Must be taken concurrently with 340 Speech Pathology Methods I.

342 Speech Pathology Methods II. 
Two sem hours
Methods of treatment of speech disorders associated with cerebral palsy, cleft palate, hearing loss and mental impairments.

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.

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 loss 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 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 programs 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: 251 Education of Exceptional Children, 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: 251 Education of Exceptional Children, 350 Mental Deficiency, 355 Educational Programs and Classroom Management for Exceptional Children.

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 psycho-motor domains will be to help develop greater self-worth. 

Prereq: 251 Education of Exceptional Children. 350 Mental Deficiency. 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 the student recognize his personal worth; become a competent employee; and develop into a contributing responsible citizen. Emphasis will be placed on the 12 to 25-year-old person. 
Prereq: 251 Education of Exceptional Children. 350 Mental Deficiency. 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 the development of personal skills in the reading and writing of Braille. Methods of teaching Braille to the blind will be emphasized. A portion of the time will be spent in Nemeth Code and Braille scientific and music notations. Use of abacus and braille-writer will be taught. 
Prereq: 251 Education of Exceptional Children.

366 Hygiene and Anatomy of the Eye. 
Two sem hours 
Lectures by ophthalmologists on anatomy, physiology and pathology of the organs of vision, refractive errors and in principles of correction. Special attention is given to diseases and causes of visual handicaps in children. Educational implications of these conditions are given. Such ancillary functions as orthoptic training, social work and parent counselling are included. 
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 
The student is given exposure to the lifestyle and needs of persons with visual impairments. He will encounter appropriate considerations that the community must take for all levels of physical, emotional and vocational development. Field trips and classroom experiences will acquaint the student with service-oriented facilities throughout the state of Michigan with exposure to units in his home state. 
Prereq: 251 Education of Exceptional Children.

378 Introduction to Audiology. 
Two sem hours 
Structure and functions of the auditory mechanisms. Included is a study of sound as the auditory stimulus, anatomy and physiology of the hearing mechanisms, diseases of the ear and treatment, pure tone audiometry.

390 Measurement and Diagnosis in Special Education. 
Two 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 Speech Reading for the Hearing Impaired. 
Two 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 Deaf I. 
Two sem hours 
Speech development of the pre-school deaf child. Analysis of speech as a motor skill, with presentation of typical problems of speech for the deaf: i.e. breathiness, voice quality, articulation, rhythm, phrasing, accent and fluency. Methods of analyzing and transcribing speech will be emphasized.

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. An integral part of this course is a one-to-one tutoring experience for a minimum of 30 clock hours during the semester. 
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 subjects to the deaf. Classroom procedures and materials especially designed for the deaf as well as the adaptation of regular curriculum and materials will be presented. 

401 Methods and Curriculum for 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 education of emotionally disturbed children. The focus is on the theoretical and philosophical foundations of programs and some attention is given to behavior management techniques, teacher role and professional relationships within given programs. 
Prereq: 301 Emotionally Disturbed Children and senior standing.
446 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.

447 Psychology of Speech and Hearing. 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.
Prereq: 301 Emotionally Impaired Children and Senior standing.

448 Seminar in Emotionally Impaired. Two sem hours
Concurrent with Special Student Teaching (See SPA596 Public School Internship in Speech Correction, Graduate Catalog).

449 Seminar in Hearing Impaired. Two sem hours
History, nature and structure of the Michigan Public School system. Problems related to integration of the functional units within the system are discussed. Organization of special services as they relate to these units is included. Students are encouraged to discuss their public school internship experiences. Several times during the semester there will be large meetings of all students enrolled in the several sections for the purpose of discussing common topics. Must be taken concurrently with Special Student Teaching. This is a credit/no credit course.

450 Seminar in Physically Impaired. Two sem hours
History, nature and structure of the Michigan Public School system. Problems related to integration of the functional units within the system are discussed. Organization of special services as they relate to these units is included. Students are encouraged to discuss their public school internship experiences. Several times during the semester there will be large meetings of all students enrolled in the several sections for the purpose of discussing common topics. Must be taken concurrently with Special Student Teaching. This is a credit/no credit course.

451 Seminar in Mentally Impaired. Two sem hours
History, nature and structure of the Michigan Public School system. Problems related to integration of the functional units within the system are discussed. Organization of special services as they relate to these units is included. Students are encouraged to discuss their public school internship experiences. Several times during the semester there will be large meetings of all students enrolled in the several sections for the purpose of discussing common topics. Must be taken concurrently with Special Student Teaching. This is a credit/no credit course.

452 Seminar in Emotionally Impaired. Two sem hours
A study of the educational and psychological problems of children with neurological and perceptual defects. Preparation and evaluation of materials.
Prereq: 251 Education of the Exceptional Child and senior standing.

453 Seminar in Hearing Impaired. Two sem hours
Advanced techniques of testing the auditory function. Consideration is given to interpretation of audiograms, hearing aid evaluations and use of differential hearing assessment techniques for children and adults with hearing disorders.
Prereq: 378 Introduction to Audiology.

454 Seminar in Mentally Impaired. Two sem hours
Advanced study on an individual basis in areas in which the department does not offer a formal course.
Prereq: 3.0 grade point average and senior standing and permission of the department.
COLLEGE OF HUMAN SERVICES

Dean: Pending

Departments and Programs

Home Economics
Medical Technology
Nursing Education
Occupational Therapy
The College of Human Services, established in January 1975, is comprised of the departments of home economics and nursing education and the programs of occupational therapy and medical technology.

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. With these facts in mind, the establishment of the college brings together both recent and long-established programs which utilize our 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 below in the descriptions of these programs.

### General Requirements

Admission to the University, even for students indicating an intention to enter the medical technology, nursing, or occupational therapy programs, does not guarantee admission to the programs. These programs have separate admission procedures with the number of students admitted restricted because of available clinical facilities and other considerations.

In addition to the general academic retention and graduation requirements of the University, some of the programs in the College of 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 the Family Life and Home Economics programs must also be admitted to the College of Education and meet the requirements listed on page 142.

### Degrees Offered

The University offers Bachelor of Science degrees in eight fields in the College of Human Services, including two teaching programs in Family Life Education and Home Economics offered in cooperation with the College of Education. Through the Department of Home Economics, the University also offers a master's degree in home economics.

The eight bachelor's degree programs are:
- Dietetics
- Family Life Education
- General Home Economics
- Home Economics Business with specializations in:
  - Consumer Management
  - Interior Design
  - Fashion Merchandising
  - Foods in Business
- Home Economics Teaching
- Medical Technology
- Nursing
- Occupational Therapy

### HOME ECONOMICS

**Department Head:** Billie L. Sands  
**Professors:** Betty L. Bornemeier, Anita L. Fielder, Duane M. Laws, Ruby L. Meis  
**Associate Professors:** R. Elaine Found  
**Assistant Professors:** Betty L. Barber, Mary M. Krieger, Richard B. Leinbach, Sarah E. Moore, N. Annette Ped, Gwendolyn M. Reichbach, Judith C. Williston  
**Instructors:** Joyce M. Bauman, B. Joy Hansen, Jo H. Webb, Phyllis A. Young.

Home economics, as a field of study, offers the student a unique combination of careers for a wide variety of professional opportunities and a valuable preparation for marriage, family and community services as well. All courses are open as electives to any student in the University if prerequisites are met.

To provide all students with the opportunity to gain the minimum of preparation for marriage and family life, the Home Economics Department offers the:

### FAMILY LIFE LECTURE SERIES

101 Family Resources, one sem hour, elective credit  
102 Family Food Management, one sem hour, elective credit  
103 Family Clothing Problems, one sem hour, elective credit  
104 Family Living, one sem hour, elective credit

One or several of the courses may be elected by any student. See course descriptions on pages 184 to 187.

### CURRICULUM IN GENERAL HOME ECONOMICS

**Bachelor of Science Degree**  
**Adviser Chairman, B. Joy Hansen**

This curriculum is designed for the student who wishes to combine interests in home economics and the liberal arts. It gives a broad general training in all phases of home economics with minor and electives in the field of the student's special interest.

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 29. 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.

A few requirements are specified for 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).

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>101 or 102 General Psychology</td>
<td>3-4</td>
</tr>
<tr>
<td>One laboratory science course</td>
<td></td>
</tr>
</tbody>
</table>

Group II Science and Mathematics

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>106 Orientation to Home Economics</td>
<td>1</td>
</tr>
<tr>
<td>114 Clothing for Consumers</td>
<td>3</td>
</tr>
<tr>
<td>117 Clothing Principles Lecture</td>
<td>1</td>
</tr>
<tr>
<td>116 Food for Consumers</td>
<td>4</td>
</tr>
<tr>
<td>204 Home Management and Family Economics</td>
<td>4</td>
</tr>
<tr>
<td>206 Contemporary Family Relations</td>
<td>4</td>
</tr>
<tr>
<td>208 Basic Interior Design</td>
<td>3</td>
</tr>
</tbody>
</table>

Group III Social Sciences

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>112 American Government or 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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>105 Integrated Arts</td>
<td>3</td>
</tr>
</tbody>
</table>

Group VI Practical Arts

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>106 Orientation to Home Economics</td>
<td>1</td>
</tr>
<tr>
<td>114 Clothing for Consumers</td>
<td>3</td>
</tr>
<tr>
<td>117 Clothing Principles Lecture</td>
<td>1</td>
</tr>
<tr>
<td>116 Food for Consumers</td>
<td>4</td>
</tr>
<tr>
<td>204 Home Management and Family Economics</td>
<td>4</td>
</tr>
<tr>
<td>206 Contemporary Family Relations</td>
<td>4</td>
</tr>
<tr>
<td>208 Basic Interior Design</td>
<td>3</td>
</tr>
</tbody>
</table>

Advanced Sequence

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>235 Textiles for Consumers</td>
<td>3</td>
</tr>
<tr>
<td>201 Nutrition for the Family</td>
<td>3</td>
</tr>
<tr>
<td>207 Living with Young Children</td>
<td>3</td>
</tr>
<tr>
<td>213 Family Health Care</td>
<td>1</td>
</tr>
<tr>
<td>251 Meal Management</td>
<td>3</td>
</tr>
<tr>
<td>269 Ecological View of Housing</td>
<td>2</td>
</tr>
<tr>
<td>271 Household Equipment</td>
<td>2</td>
</tr>
<tr>
<td>302 Experimental Clothing</td>
<td>3</td>
</tr>
<tr>
<td>406 Seminar in Home Economics</td>
<td>1</td>
</tr>
<tr>
<td>410 Home Management Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

Physical education activity courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Free electives</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>37-31</td>
</tr>
</tbody>
</table>

**CURRICULUM FOR TEACHERS IN HOME ECONOMICS**

This curriculum prepares students to certify as vocational homemaking teachers for junior and senior high schools as well as for adult education and occupational programs. See Curriculum for Teachers of Home Economics, page 152.

**CURRICULUM FOR HOME ECONOMICS IN BUSINESS**

**Bachelor of Science Degree**

Adviser Chairman, B. Joy Hansen

This curriculum has been specifically designed for those students who plan to enter the business field in one of the areas of home economics. Some of the career possibilities in the various areas of specialization are:

A. Consumer Management

Home service and demonstrator for utilities companies, consumer consultant, retailing, family welfare agencies, consultant for housing developments.

B. Interior Design

Decorating consultant, retailer of furniture or home accessories, kitchen planning consultant, publications.

C. Fashion Merchandising

Buyer for fashion department, pattern company personnel, fashion design, fashion consultant.

D. Foods in Business

Food industry technology, dietetics assistants, cafeteria or restaurant management, food demonstrator or nutrition 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 29. 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; it is the courses that must be completed, not a minimum or maximum number of hours in each Basic Studies area. This includes Group I, II, III and Humanities.

In addition to meeting Basic Studies requirements, all home economics in business majors enroll in the basic core, followed by the professional sequence and a specialization of the student's choice. Wider professional opportunities are available through chosen electives.

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>5-8</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course in English composition, 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 (automatically met by 215 Journalism in the Professional Sequence below).</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 or 102 General Psychology</td>
<td>3-4</td>
</tr>
<tr>
<td>One laboratory science course</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>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group IV Education</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(Optional, as in teacher's curriculum if certificate is desired.)</td>
<td></td>
</tr>
</tbody>
</table>

**Humanities**

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>105 Integrated Arts</td>
<td>3</td>
</tr>
</tbody>
</table>

**Semester Hours**

<table>
<thead>
<tr>
<th>Group I Language</th>
<th>5-8</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course in English composition, 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 (automatically met by 215 Journalism in the Professional Sequence below).</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 or 102 General Psychology</td>
<td>3-4</td>
</tr>
<tr>
<td>One laboratory science course</td>
<td></td>
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</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>
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<tr>
<td>112 American Government or 202 State and Local Government</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group IV Education</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(Optional, as in teacher's curriculum if certificate is desired.)</td>
<td></td>
</tr>
</tbody>
</table>
Group VI Practical Arts ........................................ 59
  General Home Economics Core ................................ 20
  106 Orientation to Home Economics .................................. 1
  114 Clothing for Consumers ........................................ 3
  116 Food for Consumers ........................................ 4
  117 Clothing Principles Lecture .................................. 1
  204 Home Management and Family Economics ......................... 4
  206 Contemporary Family Relations ................................ 4
  208 Basic Interior Design ........................................ 3
  Professional Sequence ........................................... 14
    215 Journalism ................................................ 3
    201 Principles of Economics I .................................. 3
    210 Display Techniques ......................................... 2
    360 Principles of Marketing .................................... 3
    390 Demonstration Methods ..................................... 3
  Specialization Courses ........................................... 25
  Group VII Physical Education Activity Courses ................... 4
  Free electives .................................................. 24-17
  Total ......................................................... 124

Specialization Areas for Home Economics in Business Curriculum

Select one of the four specialization groups. Include the starred courses in the total required for the specialization.

<table>
<thead>
<tr>
<th>Specialty Area</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Consumer Management</td>
<td>25</td>
</tr>
<tr>
<td>*269 Ecological View of Housing</td>
<td>2</td>
</tr>
<tr>
<td>*271 Household Equipment</td>
<td>2</td>
</tr>
<tr>
<td>*309 Residential Design</td>
<td>3</td>
</tr>
<tr>
<td>*322 Family Financial Planning</td>
<td>3</td>
</tr>
<tr>
<td>*410 Home Management Seminar</td>
<td>3</td>
</tr>
<tr>
<td>362 Introduction to Management</td>
<td>3</td>
</tr>
<tr>
<td>363 Retailing</td>
<td>3</td>
</tr>
<tr>
<td>235 Textiles for Consumers</td>
<td>3</td>
</tr>
<tr>
<td>211 Food Science</td>
<td>3</td>
</tr>
<tr>
<td>244 Personal Tax Accounting</td>
<td>3</td>
</tr>
<tr>
<td>351 General Insurance</td>
<td>3</td>
</tr>
<tr>
<td>308 Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>B. Interior Design</td>
<td>28</td>
</tr>
<tr>
<td>*235 Textiles for Consumers</td>
<td>3</td>
</tr>
<tr>
<td>*269 Ecological View of Housing</td>
<td>2</td>
</tr>
<tr>
<td>*271 Household Equipment</td>
<td>2</td>
</tr>
<tr>
<td>*275 Presentation Techniques</td>
<td>3</td>
</tr>
<tr>
<td>*309 Residential Design</td>
<td>3</td>
</tr>
<tr>
<td>*350 Historic Near Environment</td>
<td>2</td>
</tr>
<tr>
<td>*351 Historic Near Environment Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>*352 Contemporary Near Environment</td>
<td>2</td>
</tr>
<tr>
<td>*445 Advanced Residential Design</td>
<td>3</td>
</tr>
<tr>
<td>414 Field Experience (Interior Design)</td>
<td>3</td>
</tr>
<tr>
<td>*447 Contract Design</td>
<td>3</td>
</tr>
<tr>
<td>*128 Two-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>*235 Architectural Drawing</td>
<td>3</td>
</tr>
<tr>
<td>382 Introduction to Management</td>
<td>3</td>
</tr>
<tr>
<td>222 Home Furnishing Techniques</td>
<td>2</td>
</tr>
<tr>
<td>215 History of 19th Century Art</td>
<td>3</td>
</tr>
<tr>
<td>216 History of Contemporary Art</td>
<td>3</td>
</tr>
<tr>
<td>C. Fashion Merchandising ........................................ 25</td>
<td></td>
</tr>
<tr>
<td>*235 Textiles for Consumers</td>
<td>3</td>
</tr>
<tr>
<td>*302 Experimental Clothing</td>
<td>3</td>
</tr>
<tr>
<td>*345 Fashion Analysis</td>
<td>3</td>
</tr>
<tr>
<td>*362 Introduction to Management</td>
<td>3</td>
</tr>
<tr>
<td>*392 Pattern Design</td>
<td>3</td>
</tr>
<tr>
<td>414 Field Experience (Fashion)</td>
<td>3</td>
</tr>
<tr>
<td>332 Fundamentals of Television Production and Direction</td>
<td>2</td>
</tr>
<tr>
<td>350 Persuasion</td>
<td>3</td>
</tr>
</tbody>
</table>

363 Retailing .................................................. 3
249 Principles of Accounting ...................................... 3
269 Ecological View of Housing .................................... 2
271 Household Equipment ........................................ 2
309 Residential Design .......................................... 3
460 Tailoring .................................................. 3
350 Historic Near Environment ................................... 2
352 Contemporary Near Environment ................................ 2

D. Foods in Business ............................................ 25
  *105 Biological Science ......................................... 4
  *330 and 331 General Microbiology with lab .................... 5
  *201 Nutrition for the Family .................................... 3
  *211 Food Science ............................................... 3
  *391 Food Investigation .......................................... 3
  *435 Food and Nutrition Seminar ................................ 1
  251 Meal Management ........................................... 3
  381 Quantity Food Production .................................... 3
  221 General Botany .............................................. 4
  271 Household Equipment ........................................ 2
  301 Genetics ..................................................... 3
  382 Introduction to Management .................................. 3
  240 Broadcasting and Film Performance ......................... 3
  350 Persuasion .................................................. 3
  325 Expository Writing .......................................... 3

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

CURRICULUM FOR DIETETICS

Bachelor of Science Degree**

Adviser Chairman, N. Annette Peel

The dietetics curriculum is a coordinated undergraduate dietetics program in general dietetics. This specialized educational program integrates academic study with clinical experience. Upon completion of the Bachelor of Science degree in dietetics, students qualify for membership in the American Dietetic Association and are eligible to take the registration examination for Registered Dietitian status. Career opportunities for the dietitian are available in hospitals, in administrative, therapeutic, or clinical situations; in industrial food service programs; in college dormitories; in teaching or research.

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 29. 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 both Basic Studies and curriculum 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 54 hours required for graduation.

*Group IV Education is recommended as possible alternate professional field, whereupon a Secondary Provisional Certificate will be earned.
Students completing the curriculum above have met the major and minor requirements for graduation. No outside minor is needed.

**MINOR IN GENERAL HOME ECONOMICS**

Required courses:  
106 Orientation to Home Economics  
114 Clothing for Consumers  
116 Food for Consumers  
117 Clothing Principles Lecture  
204 Home Management and Family Economics  
206 Contemporary Family Relations  
208 Basic Interior Design

**CHILD CARE AND GUIDANCE SERVICES MINOR**

Course Sequence  
207 Living with Young Children  
308 Infant Care and Guidance  
251 Education of Exceptional Children  
201 Nutrition for the Family  
3 Course in Family Life  
361 Issues in Family Life  
414 Field Experiences (Family Life)  
372 Methods and Resources in Child Care  
413 Experiences with Children  
422 Seminar in Child Development  
E Elective

This minor qualifies the prospective home economics teacher for the Occupational Certificate in Child Care Services. An additional summer of supervised on-the-job training experience is required for students earning the Occupational Certificate.

**CURRICULUM FOR FAMILY LIFE EDUCATION**

Adviser Chairman, Betty L. Barber

This major in family life education has been developed with the objective of providing interdisciplinary academic experiences and supervised direct experiences with families. It draws upon course offerings of various departments in the University. Courses are designed to provide the field experiences necessary for meaningful and productive educational work with families, children, and youth; they will also provide academic backgrounds in the areas of understanding children in the family setting, and variations in family patterns and life styles.

There is a marked need for professionally trained people in the field of family life education. Some will be involved in direct education programs, as in the public schools; teachers of family life education and consultants to other classroom teachers are needed, as are persons skilled in mobilizing school-community action programs in family life education. Some agencies and organizations with a traditional casework orientation have expanded their services to include parent education and family life education. There is a growing emphasis in programs such as those sponsored by the Cooperative Extension Service, a broad concern with the totality of family relationships. As pre-school education becomes an integral part of more public school programs, professional persons who are skilled in working with parents, young children and families will be needed.

*Students who wish to declare a teaching minor also take 371 Methods and Materials in Homemaking Education and 406 Seminar in Home Economics to fulfill North Central Association Requirements (24 for teaching at junior and senior high level).*
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 2. 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.

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>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group I Language</strong></td>
</tr>
<tr>
<td>One course in English composition or, if eligible, a foreign language course.</td>
</tr>
<tr>
<td>One course in fundamentals of speech.</td>
</tr>
<tr>
<td>One elective course in English language, in a foreign language, in speech, or in library science (Group I).</td>
</tr>
<tr>
<td><strong>Group II Science and Mathematics</strong></td>
</tr>
<tr>
<td>101 or 102 General Psychology</td>
</tr>
<tr>
<td>One laboratory science course.</td>
</tr>
<tr>
<td>A second laboratory science course or a course in mathematics.</td>
</tr>
<tr>
<td><strong>Group III Social Sciences</strong></td>
</tr>
<tr>
<td>One history course.</td>
</tr>
<tr>
<td>105 Introductory Sociology and 214 Racial and Cultural Minorities</td>
</tr>
<tr>
<td>112 American Government or 202 State and Local Government</td>
</tr>
<tr>
<td><strong>Humanities</strong></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>105 Integrated Arts</td>
</tr>
<tr>
<td><strong>Group IV Education (to be included for those desiring a Provisional Secondary Teaching Certificate)</strong></td>
</tr>
<tr>
<td>320 Human Growth and Development</td>
</tr>
<tr>
<td>326 School and Society</td>
</tr>
<tr>
<td>375 Methods of Teaching Family Life</td>
</tr>
<tr>
<td>405 Guidance Function of Secondary School Teaching</td>
</tr>
<tr>
<td>418 Seminar in Education</td>
</tr>
<tr>
<td>492 Student Teaching</td>
</tr>
<tr>
<td><strong>Group VI Practical Arts</strong></td>
</tr>
<tr>
<td><strong>Required Family Life Core</strong></td>
</tr>
<tr>
<td>206 Contemporary Family Relations</td>
</tr>
<tr>
<td>207 Living with Children</td>
</tr>
<tr>
<td>216 Family Interaction</td>
</tr>
<tr>
<td>107 Food for Man</td>
</tr>
<tr>
<td>204 Home Management and Family Economics</td>
</tr>
<tr>
<td>361 Issues in Family Life</td>
</tr>
<tr>
<td>360 Concepts in Sex Education</td>
</tr>
<tr>
<td>414 Field Experiences (Family Life)</td>
</tr>
<tr>
<td><strong>Electives to Complete Group VI</strong></td>
</tr>
<tr>
<td>202 Social Problems</td>
</tr>
<tr>
<td>213 Family Health Care</td>
</tr>
<tr>
<td>269 Ecological View of Housing</td>
</tr>
<tr>
<td>306 The Urban Community</td>
</tr>
</tbody>
</table>

**FAMILY LIFE MINOR**

<table>
<thead>
<tr>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td><strong>Required courses</strong></td>
</tr>
<tr>
<td>206 Contemporary Family Relations</td>
</tr>
<tr>
<td>107 Food for Man</td>
</tr>
<tr>
<td>216 Family Interaction</td>
</tr>
<tr>
<td>361 Issues in Family Life</td>
</tr>
<tr>
<td>207 Living with Young Children</td>
</tr>
<tr>
<td><strong>Elective courses</strong></td>
</tr>
<tr>
<td>204 Home Management and Family Economics</td>
</tr>
<tr>
<td>308 Infant Care</td>
</tr>
<tr>
<td>322 Psychology of Adolescence</td>
</tr>
<tr>
<td>360 Concepts in Sex Education</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

If this is to be a teaching minor, students will take 375 Methods of Teaching Family Life, an additional three hours.

Students enrolled in other home economics curriculums (i.e., general, education or business) will adapt the Family Life minor requirements as follows:

207 Living with Young Children | 3
322 Psychology of Adolescence | 3
202 Social Problems | 3
101 General Psychology | 3
213 Family Health Care | 1
360 Concepts in Sex Education | 2
216 Family Interaction or 361 Issues in Family Life | 3
414 Field Experiences (Family Life) | 3

**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**

101 Family Resources | One sem hour
Study of planning, particularly for families with limited money, time or energy. Considerations of values, goals and decision-making integral to satisfaction of family needs.

102 Family Food Management | One sem hour
Study of the factors in the planning of nutritious, palatable and economical meals for all families.

103 Family Clothing Problems | One sem hour
Lectures on family problems relating to selection and care in planning clothing for the family.
104 Family Living. One sem hour
Lectures on family relationships which are basic to marriage success and to the welfare of the children. Study of pressures which result in family problems and ways to deal with them.

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.

106 Orientation to Home Economics. One sem hour
Home economics as a field of study: its development, scope and leadership, its contribution to education for home and family life, career opportunities.

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.

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 Food for Consumers. Four sem hours
Basic study of food for consumers, including principles of food preparation and selection and introduction to food science.

117 Clothing Principles Lecture. One sem hour
The interpretation of clothing principles, standards and techniques in relation to fabric manipulation, fit and construction.

118 Clothing Principles Lab. One sem hour
Application of clothing principles, standards and techniques through construction of a garment.

201 Nutrition for the Family. Three sem hours
Study of nutrients in foods, including functions in developing and maintaining normal growth and health in individuals.

202 Human Nutrition. Three sem hours
Study of nutrients with emphasis on their sources, structure, and function, and the process of digestion, absorption and metabolism in man. For nursing and dietetics students. Prereq: 120 Fundamentals of Chemistry or 131 General Chemistry I.

204 Home Management and Family Economics. Four 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.

206 Contemporary Family Relations. Four sem hours
Family relationships throughout the life cycle with concerns for changes in values and roles of family members and effective patterns for family adjustments. Recitation required.

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. Formerly offered as 307 Preparation for Parenthood.

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.

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, microbe flora and manipulative practices. Prereq: 116 Food for Consumers and 120 Fundamentals of Chemistry or 131 General Chemistry I.

213 Family Health Care. One sem hour
Survey of current health problems and community resources available to families.

216 Family Interaction. Three sem hours
A study of the varieties of interpersonal relationships in families with emphasis on the shifting role requirements and relationships with non-family members; designated to help students who will be dealing with families of many patterns and cultures. Prereq: 206 Contemporary Family Relations.

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.

251 Meal Management. Three sem hours
Study of management of time, human and economic resources in the planning and the preparation of meals. Prereq: 116 Food for Consumers and 201 Nutrition for the Family or 202 Human Nutrition.

269 Ecological View of Housing. Two sem hours
A study of housing as it relates to social and economic conditions for individuals and families in society.

271 Household Equipment. Two sem hours
Study of appliances, basic principles of operation, performance, care and comparative values for consumer selection. Prereq: 116 Food for the Family and 204 Home Management and Family Economics.

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.

301 Orientation to Dietetics. Two sem hours

302 Experimental Clothing. Three sem hours
Experience in clothing construction with emphasis on processes and techniques relative to varied fabrics and designs. Prereq: 117 Clothing Principles Lecture and 118 Clothing Principles Lab. 235 Textiles for Consumers.

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. Obser-
uation/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, 273 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 federal, state and local agencies with nutrition programs. Supervised clinical experiences.
Prereq: 201 Nutrition for Family or 202 Human Nutrition, or permission of the department.

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: 204 Home Management and Family Economics.

345 Fashion Analysis. Three sem hours
The movement of fashion, major U.S. and European markets, the garment industry.
Prereq: 302 Experimental Clothing, 201 Principles of Economics I.

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.

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.

353 Contemporary Near Environment Laboratory. One sem hour
This laboratory is the companion course of HEC 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: 206 Contemporary Family Relations and junior or senior standing.

371 Methods and Materials in Homemaking Education. Three sem hours
Responsibilities of homemaking teachers, group planning of curriculums, units of work, facility planning, interrelations of homemaking education and the total school and community. Not open to graduate students for graduate credit.
Prereq: 320 Human Growth and Development, 326 (or coreq: School and Society and junior standing.

372 Methods and Resources in Child Care. Three sem hours
Responsibilities of homemaking 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 preschool children.
Prereq: 207 Living with Young Children and 308 Infant Care and Guidance.

375 Methods and Materials in Family Life Education. Three sem hours
Prereq: 320 Human Growth and Development, 326 (or coreq: School and Society.

380 Equipment and Layout for Quantity Food Services. Two sem hours
Study of basic principles of selection, operation, performance and care of equipment used in institutional food services with emphasis on efficient floor planning or layout.
Prereq: 211 Food Science.

381 Quantity Food Production. Three sem hours
Study of menu planning, food purchasing, food preparation techniques and sanitation principles in institutional food services. Supervised experience in work situations.
Prereq: 251 Meal Management and 380 Equipment and Layout for Quantity Food Services.

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 experience.
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 (open to graduate students for two semester graduate hours).

391 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.

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.
Prereq: 301 Orientation to Dietetics and MGT 382 Introduction to Management or permission of the department.

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.
401 Nutrition for the Family or 202 Human Nutrition

106 Seminar in Home Economics. One sem hour Integration, interpretation and evaluation of current issues in field of home economics. Sections of the course offered for specialization areas as needed.

10 Home Management Seminar. Three sem hours Analysis of conceptual frameworks of home management. Emphasizes family members’ roles in decision-making, the effect of values, stages in family life cycle and cultural and ecological environments on the use of family resources with application in living situations.

204 Home Management and Family Economics, 206 contemporary Family Relations.

12 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.

201 Nutrition for the Family or permission of the department.

18 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.

372 Methods and Resources in Child Care.

14 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.

145 Diet and Disease. Three sem hours Study of diet in the treatment of abnormal metabolic and disease states.

402 Nutrient Metabolism, 351 Introductory Biochemistry, 270 Human Physiology.

42 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.

407 Permission of the department.

45 Foods and Nutrition Seminar. One sem hour Critical evaluation of current topics of foods and nutrition.

40 Seniors in dietetics or food specialization.

45 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.

409 Residential Design.

47 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.


460 Tailoring. Three sem hours Fundamental construction processes and special techniques applied to the construction of tailored garments; alterations and adaptations.

460 Six hours of credit in clothing and/or textiles; or permission of the department.
Medical Technology

Medical Technology Curriculum
Bachelor of Science Degree

Adviser Chairman. Charles Anderson

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 up to two years in their college, take the third year of work at the University, and, in those instances in which the University has affiliation with a school of medical technology in their home community, may return there for the internship in the fourth year. The University has such an agreement with St. Clair County Community College and the Port Huron Hospital; Flint Community Junior College, McLaren General Hospital and Saint Joseph Hospital; Jackson Junior College and W. A. Foote Hospital.

In addition, the University has affiliations with several hospitals in the Detroit and suburban area, so that students attending community colleges there may, with careful planning of their programs, follow the same plan.

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 (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, as specified in detail on page 29. This same page indicates how students completing the General Humanities Program may 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 or 281 or 371; Biology 105, 222, and 330-331 or 360; Mathematics 105 or higher. In satisfying the above requirements, transfer students must have 12 semester hours at EMU including one biology course and one chemistry course. An overall GPA at EMU of at least a 2.50 with no grade below "C" in any science course is required. The application form can be obtained from any medical technology adviser. Only students whose applications have been approved can use the 30 hour internship as a major toward the Bachelor of Science degree. Each student is responsible for securing an internship position, and acceptance into the program does not guarantee placement in any hospital.

Medical technology schools affiliated with the University and their directors are:

Detroit Memorial Hospital, Detroit . . . . J. D. Langston, M.D.
McLaren General Hospital, Flint ....... Kurt W. Mikat, M.D.
Oakwood Hospital, Dearborn . . Rosser L. Mainwaring, M.D.
Pontiac General Hospital . . . . . . . . . . . . . . John Libeke, M.D.
Port Huron Hospital, Port Huron . . . . Clemens M. Kopp, M.D.
Providence Hospital, Southfield . . . . Wyant J. Shively, M.D.
Saint Joseph Hospital, Flint . . . . . . . Wayne L. Eaton, M.D.
Wayne County General Hospital, Eloise . . . W. Schmidt, M.D.
W. A. Foote Hospital, Jackson . . . . . . . Henry A. Kallet, M.D.

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.

<table>
<thead>
<tr>
<th>First Semester</th>
<th>First Year</th>
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<tbody>
<tr>
<td>One course in English composition or, if eligible, a foreign language course (121 through 222)</td>
<td>16-14</td>
</tr>
<tr>
<td>105 College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>105 Biological Science</td>
<td>4</td>
</tr>
<tr>
<td>131 General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>Physical education activity (2) or military science</td>
<td>1</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Semester</th>
<th>Second Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course in fundamentals of speech</td>
<td>14-15</td>
</tr>
<tr>
<td>112 American Government or 202 State and Local Government</td>
<td>17-15</td>
</tr>
<tr>
<td>222 General Zoology</td>
<td>4</td>
</tr>
<tr>
<td>132 General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>Physical education activity (2) or military science</td>
<td>1</td>
</tr>
</tbody>
</table>

**Humanities requirements include:**
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.

**Social Sciences requirements include:**
A second course in history or a two-semester sequence in sociology-cultural anthropology or economics of geography (Group III).

**Recommended Electives:**
120 or 121 Typewriting
136 Survey of Computer Science
137 Introduction to Computer Programming
221 Mechanics, Sound and Heat
222 Electricity and Light
301 Genetics
324 Comparative Anatomy of Vertebrates
320 General Physiology
327 Vertebrate Physiology
345 Medical Mycology
401 Biological Techniques
404 Histology
485 Radioisotope Techniques in Chemistry and Biology
495 Practicum in Hematology
Third Year

First Semester
- 331 General Microbiology
- 330 General Microbiology Laboratory
- Humanities Requirement
- Social Sciences Requirement
- Electives

Second Semester
- Humanities Requirement
- Social Sciences Requirement
- Electives

Fourth Year

A twelve-month period spent in lecture and laboratory training at an affiliated school of medical technology

Total

17
2
2-3
3
7-6
16-14
3
0-3
11-5
30
124

NURSING EDUCATION

Department Head: Pending
Assistant Professors: Judith A. Floyd, Deanna L. Gaus, Edith D. Raleigh, Janis K. Tobias
Instructors: Margaret A. Bassett, Christine M. Bump

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 a registered nurse 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 Nursing Department Office in King Hall early in their freshman year. The application will specify exact requirements, deadline dates, and expected notification times, but applications are usually due in February for the 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 physical education activity hours), 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 year-round 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.

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 may, upon recommendation of the Advisory Council, result in dismissal from the nursing program. Any "E" grade in a nursing course or other required course in Groups II, IV or VI may 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 29. This same page indicates how students may choose an alternate way of meeting eight of the required Basic Studies course requirements by completing the General Humanities Program.

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

In addition to meeting Basic Studies requirements, all students on this curriculum must complete all other courses specified below.

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

Bachelor of Science Degree

Adviser Chairman, Deanna L. Gaus

<table>
<thead>
<tr>
<th>Group I Language</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course in English composition or, if eligible, a foreign language course.</td>
<td>8-9</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>

| 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. | 4 |

| Group IV Education | 4 |
| 320 Human Growth and Development | 4 |

| Group VI Practical Arts | 48 |
| 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 |
| 201 Human Nutrition | 3 |

| Group VII Physical Education and Health | 4 |
| Physical Education Activity Courses (eight activity hours) | |
| Notes: 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.

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 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: five 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. Recitation: two hours per week. Laboratory: six 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. Lecture: six hours per week. Recitation: two hours per week. 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. Lecture: two hours per week. Recitation: one hour per week. Laboratory: two hours per week.

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. Lecture: three hours per week.

Prereq: 250 Nursing Science I. 251 Nursing Science I Clinical Laboratory and 202 Anatomy and Physiology.

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. Recitation: two hours per week. Laboratory: six hours per week.

Prereq: 250 Nursing Science I. 251 Nursing Science I Clinical Laboratory and 202 Anatomy and Physiology.

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. Lecture: two hours per week. Recitation: one hour per week. Laboratory: two hours per week.

Prereq: 204 Framework for Nursing. 201 Anatomy and Physiology.

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 328/331 Microbiology.

370 Physical Assessment. Three sem hours

Familiarizes students with normal physical examination findings. Laboratory sessions provide opportunities for doing
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: 304 Nursing Science II, 305 Nursing Science II Clinical Laboratory, 320 Pathology and 328/331 Microbiology.

404 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 the 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.

405 Nursing Science IV Clinical Laboratory.
Five 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 III 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 Independent Study.
One sem hour
Prereq: Permission of the department.

498 Independent Study.
Two sem hours
Prereq: Permission of the department.

499 Independent Study.
Three sem hours
Prereq: Permission of the department.

The curriculum for students admitted to the program in Occupational Therapy consists of a minimum of five semesters of academic work on campus plus six months of supervised field work in an affiliated agency. Upon successful completion of the program the graduate is eligible for a Bachelor of Science degree with a major in occupational therapy and 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 has been approved and accredited by the Council of Medical Education of the American Medical Association. It also meets all training requirements for professional registration with the American Occupational Therapy Association.

Admission to the University, even if students indicate an intention of entering the Occupational Therapy curriculum, does not guarantee admission to the Occupational Therapy program.

Prospective students should request an application from the Occupational Therapy office in King Hall early in their freshman year. The application will specify exact requirements, deadline dates, and expected notification times, but applications for the fall OT class are usually due early in February and for the winter class early in July.

Students are eligible for selection into the occupational therapy program upon completion of a minimum of 30 semester hours of university credit (excluding physical education activity hours) including 105 Biological Science (or equivalent), 101 Psychology, 101 Introductory Sociology, 101 Introduction to Art, and 121 English Composition.

The availability of clinical facilities and other considerations restrict sharply the number of students admitted to the classes that begin each fall and winter semester. Admission is very competitive.

Students should plan carefully for the year-round nature of the professional part of the Occupational Therapy program. This professional segment requires five sequential semesters (including spring and summer sessions as one semester) of work, plus a final six months field work experience.

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 29. 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.
### OCCUPATIONAL THERAPY CURRICULUM

**Bachelor of Science Degree**

Adviser Chairman, Lyla M. Spelbring

<table>
<thead>
<tr>
<th>Group I Language</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course in English composition or, if eligible, a foreign language course.</td>
<td>8-9</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>
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</table>

<table>
<thead>
<tr>
<th>Group II Science and Mathematics</th>
<th>28</th>
</tr>
</thead>
<tbody>
<tr>
<td>101 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>105 Biological Science (or equivalent)</td>
<td>4</td>
</tr>
<tr>
<td>*200 Anatomy for Occupational Therapy Students</td>
<td>5</td>
</tr>
<tr>
<td>*270 Human Physiology</td>
<td>3</td>
</tr>
<tr>
<td>*305 Neuroanatomy and Neurophysiology</td>
<td>3</td>
</tr>
<tr>
<td>*301 Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>*304 Rehabilitation Lectures I</td>
<td>2</td>
</tr>
<tr>
<td>*305 Rehabilitation Lectures II</td>
<td>2</td>
</tr>
<tr>
<td>Elective in Psychology</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>Group III Social Sciences</th>
<th>12</th>
</tr>
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<tbody>
<tr>
<td>One course in history</td>
<td>3</td>
</tr>
<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 202 State and Local Government</td>
<td>3</td>
</tr>
<tr>
<td>Elective in sociology</td>
<td>3</td>
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</table>

<table>
<thead>
<tr>
<th>Humanities</th>
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</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>
<tr>
<td>101 Introduction to Art</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group IV Education</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>*301 The Emotionally Impaired Child</td>
<td>4</td>
</tr>
<tr>
<td>*306 Measurement and Diagnosis in Special Education</td>
<td>2</td>
</tr>
<tr>
<td>*320 Human Growth and Development</td>
<td>4</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Group V Fine Arts</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>300 Creative Art</td>
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</table>

<table>
<thead>
<tr>
<th>Group VI Practical Arts</th>
<th>35</th>
</tr>
</thead>
<tbody>
<tr>
<td>*102 Woodwork</td>
<td>3</td>
</tr>
<tr>
<td>*201 Survey of Occupational Therapy</td>
<td>2</td>
</tr>
<tr>
<td>*202 Occupational Therapy Activities Laboratory I</td>
<td>2</td>
</tr>
<tr>
<td>*203 Occupational Therapy Activities Laboratory II</td>
<td>2</td>
</tr>
<tr>
<td>*361 Psychiatry Lectures</td>
<td>2</td>
</tr>
<tr>
<td>*380 Occupational Therapy in Mental Health</td>
<td>2</td>
</tr>
<tr>
<td>*390 Mental Health Placement</td>
<td>2</td>
</tr>
<tr>
<td>*406 Physical Function Placement</td>
<td>2</td>
</tr>
<tr>
<td>*407 Programming for Physical Function</td>
<td>3</td>
</tr>
<tr>
<td>*408 Delivery of Occupational Therapy Services</td>
<td>2</td>
</tr>
<tr>
<td>*409 Adaptive Equipment</td>
<td>2</td>
</tr>
<tr>
<td>*410 Adjustment to Disability</td>
<td>2</td>
</tr>
<tr>
<td>*495 Field Work in Occupational Therapy</td>
<td>8</td>
</tr>
</tbody>
</table>

| Free electives | 12 |

<table>
<thead>
<tr>
<th>Group VII Physical Education and Health</th>
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</thead>
<tbody>
<tr>
<td>Physical Education Activity courses (eight activity hours)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>124</td>
</tr>
</tbody>
</table>

### COURSES

#### 201 Survey of Occupational Therapy
- Two sem hours
- A study of the history, development and scope of the field of occupational therapy. Active participation in selected areas of community services is required.
- Prereq: 30 lower division credit hours and permission of the department.

#### 202 Occupational Therapy Activities Laboratory I
- Two sem hours
- Analysis and application of weaving and related crafts activities for treating dysfunction.
- Prereq: 201 Survey of Occupational Therapy or concurrent.

#### 203 Occupational Therapy Activities Laboratory II
- Two sem hours
- Activity analysis and application of occupational therapy media.
- Prereq: 202 Occupational Therapy Activities Laboratory and 270 Human Physiology.

#### 301 Kinesiology for Occupational Therapy Students
- Three sem hours
- The study of human motion and its application to occupational therapy treatment.
- Prereq: 203 Occupational Therapy Activities Laboratory.

#### 304 Rehabilitation Lectures I
- Two sem hours
- A series of lectures on neurological and orthopedic conditions.
- Prereq: 305 Neuroanatomy and 301 Kinesiology.

#### 305 Rehabilitation Lectures II
- Two sem hours
- A series of lectures on medical and surgical conditions they relate to the practice of occupational therapy.
- Prereq: 304 Rehabilitation Lectures I.

#### 361 Mental Health Dysfunction
- Two sem hours
- The study of the nature of mental health dysfunction. Course includes lecture and clinical observation.
- Prereq: PSY 360 and a 200-level sociology course.

#### 380 Occupational Therapy in Mental Health
- Three sem hours
- Analysis and application of various occupational therapy approaches to working with mental health clients.
- Prereq: 361 Psychiatry Lectures. To be taken simultaneously with 390 Mental Health Placement.

#### 390 Mental Health Placement
- Three sem hours
- The application of occupational therapy theories through field experience in various mental health treatment facilities.
- Prereq: 361 Psychiatry Lectures. To be taken simultaneously with 380 Occupational Therapy in Mental Health.

#### 406 Physical Function Placement
- Two sem hours
- Field work placement, providing observation and treatment planning for clients with physical dysfunction.
- Prereq: To be taken as a block with 407 Programming for Physical Function, 409 Adaptive Equipment and 410 Adjustment to Disability.

#### 407 Programming for Physical Function
- Three sem hours
- Patient evaluation, treatment planning techniques in the area of physical functioning.
- Prereq: To be taken as a block with 406 Physical Function Placement, 409 Adaptive Equipment and 410 Adjustment to Disability.

*Completion of courses identified satisfies all major and minor requirements for graduation. No outside minor is needed.*
408 Delivery of Occupational Therapy Services. Two sem hours
The organization and administration of occupational therapy services in conjunction with other community health services.
Prereq: 305 Neuroanatomy and 301 Kinesiology for Occupational Therapy Students.

409 Adaptive Equipment. Two sem hours
Laboratory course covering the evaluation, designing and construction of assistive devices.
Prereq: To be taken as a block with 406 Physical Function Placement, 407 Programming for Physical Function and 410 Adjustment to Disability.

410 Adjustment to Disability. Two sem hours
Psychological aspects of clients with problems in physical functioning.
Prereq: To be taken as a block with 406 Physical Function Placement, 407 Programming for Physical Function and 409 Adaptive Equipment.

495 Field Work in Occupational Therapy. Eight 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 clinical placement will require the recommendation of the occupational therapy faculty.

497 Independent Study. One sem hour

498 Independent Study. Two sem hours

499 Independent 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 students' area of special interest.
DIVISION OF APPLIED SCIENCES

DEPARTMENTS

Industrial Education
Military Science
Field Services

PROGRAMS

Black Studies
The Center for the Study of Contemporary Issues
International Studies
INDUSTRIAL EDUCATION

Department Head: H. James Rokusek
Professors: Ronald J. Baird, Gerald L. Jennings, Clois E. Kicklighter, Raymond A. LaBounty, Delmar L. Larsen
Associate Professors: Ralph F. Gilden, Jerald A. Griess, Paul D. Kuwik, Gene D. Minton, Carroll A. Osborn, Harold E. PaDellord, John T. Wescott
Assistant Professors: Robert A. Benden, Robert C. Cooksey, Norman L. Delventhal, Lewis D. Kieft, Herbert L. Nelson, Alfred A. Roth, John A. Weeks, Herbert H. Wilson
Instructors: Mark Lindsay, Harry T. Smith

The Department of Industrial Education offers courses and curricula 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 elementary, 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 20-hour minor in industrial technology.
7. Two-year industrial technician certification programs.
8. The Master of Arts degree for persons who hold a secondary provisional teaching certificate in industrial education.
9. Basic elective course experiences in technical subjects related to the application of technology in modern society.

The four-year program 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 30.)

CURRICULUM FOR TEACHERS OF INDUSTRIAL EDUCATION

This curriculum provides for the certification of teachers for industrial arts in elementary, junior and senior high grades. See Curriculum for Teachers of Industrial Education, page 153. 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.

INDUSTRIAL TECHNOLOGY CURRICULUM

Bachelor of Science Degree

Adviser Chairman, John Weeks

This curriculum is designed to prepare students for employment in technologically oriented industrial occupations. A broad based foundation in the physical and applied sciences provides experiences for students that relate directly to technology. Typical occupations available to industrial technology graduates include such titles as industrial supervisors, managers, quality control or maintenance engineers, designers, research specialists, estimators and engineering technologists. 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 29. 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 course 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

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 liberal science (Group I).

Group II Science and Mathematics

105 College Algebra
107 Plane Trigonometry
131 General Chemistry 1
241 Materials Science
180 Chemistry Laboratory Techniques
236 Introduction to Computer Programming
221 Mechanics, Sound and Heat
222 Electricity and Light
Electives

Group III Social Sciences

One history course
Either of the following

112 American Government or
202 State and Local Government

Either of the following

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

Humaneities

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

Group VI Practical Arts

Basic Sequence
116 Elements of Production
121 Graphic Communication
122 Technical Drawing
123 Metal Processes
200 Electricity and Electronics I
202 Plastics
302 Business Communications

The student may choose to complete the 40 semester hours of general requirements as listed, or a 30 semester hour grouping of courses which includes an approved 20 semester hour minor in science or mathematics. 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.
Industrial Technology Minor

The 20-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 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.

<table>
<thead>
<tr>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>Required Courses</td>
</tr>
<tr>
<td>121 Graphic Communication</td>
</tr>
<tr>
<td>200 Electricity and Electronics I</td>
</tr>
<tr>
<td>217 Field Study in Industries</td>
</tr>
<tr>
<td>317 Structure of Industry</td>
</tr>
<tr>
<td>Electives</td>
</tr>
<tr>
<td>Total Semester Hours</td>
</tr>
</tbody>
</table>

Graduate Study

The Industrial Education Department offers graduate work leading to the master's degree in industrial education. For descriptions of graduate courses and programs in the Industrial Education Department, please consult the Graduate Catalog.

COURSES

102 Woodwork. Three sem hours
Basic wood processing with hand and power tools. Includes learning situations in design, pattern development, project construction and finishing. Selection, use and care of hand and power tools. Not open to majors in industrial education. Lecture: two hours per week. Laboratory: two hours per week.

104 Graphic Arts Processes. Three sem hours
History of printing, typography, layout and design, hand composition, printing methods, proofreading, basic press work, silk screen printing, duplicating, thermography, rubber stamps and basic photo-offset lithography. Not open to majors in industrial education. Lecture: two hours per week. Laboratory: two hours per week.

105 History of Industrial Technology. Three sem hours
An introduction to the history of industrial technology. The development of industry and its impact on the other arts, and to culture in general. Investigates basic principles of design in industrial and home arts, and the esthetic, paleotechnic, neotechnic and atomic periods of technology.

116 Elements of Production. Three sem hours
The theory and application of those industrial elements associated with the production of goods, including the coordination of material, process and human resources. Lecture: two hours per week. Laboratory: two hours per week.

118 Energy Utilization. Three sem hours
An introductory study of energy problems of the present and future. Methods of converting energy into power are demonstrated. For students with little or no science or technical background.

119 Consumer Automotives. Three sem hours
A basic study of the operation of automobile engine and chassis systems, fuels and lubricants. Also reviews the problems of purchasing, selection of repairmen, cost of operation, tune-ups, safety and the social impact of the automobile. Open to all students, but specifically designed for those with little or no technical background. Lecture: two hours per week. Laboratory: two hours per week.

121 Graphic Communication. Three sem hours
Preparation and design of graphic media. The theory and application of effective communications. Information collection, analysis, and dissemination, survey of the graphic communication industry. Lecture: two hours per week. Laboratory: two hours per week.

122 Technical Drawing. Three sem hours
The study and application of technical sketching and mechanical drawing. Planned and organized especially for pre-engineering, industrial education and technical drawing majors. Lecture two hours per week. Laboratory: two hours per week.

123 Metal Processes. Three sem hours
Survey and analysis of fundamental metal processes used in manufacturing. Emphasis upon theory and application in joining, forming, cutting, treating and the physical testing of metals. Lecture: two hours per week. Laboratory: two hours per week.

128 Architectural Drawing I. Three sem hours
A beginning course dealing with the basic skills and techniques used in architectural drawing, the basic principles of architectural construction drawings, their scope, content, and preparation, a survey of current building practices and use of materials. Identification of various sources of technical data regarding building materials and development of competence in using technical data for architectural problem solving. Lecture: two hours per week. Prereq: A course in instrument drawing.

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.

150 Aviation Ground Instruction. Two 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 Electricity and Electronics I. Three sem hours
A basic course in the application and manipulation of fundamental concepts of electricity and electronics. Topics include
sources, rectifiers, phase relationships, magnetism, current flow and controls. The use of meters and test equipment is emphasized. 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.

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.

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 plate making 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 Electricity and Electronics II. Two sem hours
A continuation of 200 Electricity and Electronics I. Additional topics include semiconductors, vacuum tubes, circuits, inductance, capacitance, LCR circuits, amplifiers, oscillators, transmission and reception. The laboratory provides experience with test equipment in functional and experimental forms. Lecture: one hour per week. Laboratory: two hours per week. Prereq: 200 Electricity and Electronics I.

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 Field Study in Industries. Two sem hours
Study of manufacturing processes in industry. Opportunity is provided for observation of the industrial complex through field trips to selected industries in the local area. Lecture: one hour per week. Laboratory: two hours per week.

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 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 or 107 Trigonometry.

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 is 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. Laboratory: two hours per week.

270 Aviation Flight Training. Two sem hours
Forty hours of flight training preparation for the private flight examination. Prereq: Completion or concurrent enrollment in 170 Aviation Ground Instruction or a passing score on the FAA private pilot written examination. Departmental permission.

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: four 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.
309 Typography. Two sem hours
Includes the study of type design and mechanical and photographic composition with application in letterpress and offset printing. Laboratory: two hours per week. PreReq: 202 Plastics.

309 Offset Presswork. Three sem hours
Operation and maintenance of small offset presses, stripping and layout, ink and water control, elementary plate making and camera work. Lecture: two hours per week. Laboratory: four hours per week. PreReq: 207 Photographic Reproduction.

310 Graphic Arts Design. Three sem hours
A study of design problems dealing with the media of the various reproduction fields of the graphic arts industry. Lecture: two hours per week. Laboratory: four hours per week. PreReq: 207 Photographic Reproduction.

314 Solid State Electronics. Two sem hours
An introduction to semiconductor theory and principles associated with solid state devices. A study of PN junction, junction transistors, diodes, ACR's amplifier circuits and related semiconductor devices. Laboratory: two hours per week. PreReq: 214 Electricity and Electronics II.

315 Communications Circuitry. Two sem hours
A study of commercial and amateur radio and television transmitters and receivers, theory, construction and use. Construction and trouble diagnosis are included in the laboratory experience. Laboratory: two hours per week. PreReq: 214 Electricity and Electronics II.

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: four hours per week. PreReq: 215 Machine Tool Metalworking.

317 Structure of Industry. Two sem hours
A study of the structure of industry as the institution in our society responsible for the production of goods and services.

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 basis for laboratory experimentation in these methods. Lecture: two hours per week. Laboratory: four hours per week. PreReq: 200 Electricity-Electronics I. 218 Energy Systems and 219 Technics of Energy Control, or permission of the department.

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: four hours per week. PreReq: 216 Energy Systems.

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: four hours per week. PreReq: 223 Descriptive Geometry.

325 Industrial Production Fundamentals. Three sem hours
Particularly for students who are specializing in plant management and supervision. The course consists of the following areas: blueprint reading, sketching and reproduction and materials in manufacturing. Participation of industrial resource persons demonstrating products and related production methods will be utilized.

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: four hours per week. PreReq: An instrument drawing course, 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.

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 only.

424 Industrial Plant Facilities and Planning. Three sem hours
Designed to give the student a basic knowledge of planning methods 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
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
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 student 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 only. Prereq: 394 Cooperative Education in Industrial Technology.

495 Industrial Safety.  
Three sem hours

An in-depth study of the role of safety programs, federal and state safety standards, and voluntary compliance of standards in occupational safety and health. Areas affected by standards set by governmental agencies, such as OSHA and MOSHA, are viewed. Of special value to safety directors, employers and employees with an interest in occupational safety and health standards.

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.

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MILITARY SCIENCE

Department Head: LTC Michael L. Chirio, Jr.

Assistant Professors: CPT Charles E. Keen, CPT John Ressler, CPT Floyd Williams

The military science program is designed to provide "on-campus" education and training in a special curriculum which permits entry into the armed forces at the commissioned officer level. Emphasis is directed toward the role of an officer in organizing, motivating and leading others. Also included are practical exercises in the development of self-discipline, confidence, physical stamina and bearing.

The program is normally of four years duration and is conducted as a complement to the student's chosen field of academic endeavor. Its successful completion enables the student to earn a commission as a career officer or member of the reserve components concurrently with the award of the University degree.

Special programs offered include flight training, distinguished military graduate program, the ROTC scholarship program and the transfer student two-year program.

Students wishing information on cross-enrollment options for Air Force and Navy ROTC should contact the professor of Military Science in Roosevelt Hall.

THE BASIC PROGRAM

The basic program is open to any male or female student on an elective basis. It requires normally two academic years for completion and is a prerequisite for entrance into the advanced program.

Prescribed Courses:

First Semester—MS 100 The United States Defense and National Security I. Two sem hours.

Second Semester—MS 101 The United States Defense and National Security II. Two sem hours.

MS 102 Leadership Laboratory must be taken in conjunction with the 101 level course.

Third Semester—MS 200 Topography, Terrain Appreciation and Small Unit Employment. Two sem hours.

Fourth Semester—MS 201 A History of American Military Development. Two sem hours.

MS 202 Leadership Laboratory must be taken in conjunction with both 200 level courses.

Credit Toward Graduation

A maximum of eight semester hours may be awarded toward graduation for completion of the basic program. Two of the semester hours, at the student's option, may count toward satisfying the general requirement in physical education.

Uniforms, Texts, Special Equipment, Etc.

1. Uniforms for basic students are furnished by the Army. Students make a ten dollar deposit to the University for uniforms. This deposit is refunded when uniforms are returned.

2. Students will be required to wear the uniforms when participating in laboratories, ceremonies and other mandatory departmental activities.

3. All required texts and special equipment are furnished to the student on a loan basis.

The Two-Year Program

This is a special program which is designed for community college transfer students and other students who were unable to enroll in military science courses during their first two years in college. Applicants complete a six-week summer field
THE ADVANCED PROGRAM

Admission to the advanced program is by permission of the Military Science Department. Normally a student should make application for admission two years before his planned date of graduation. Upon successful completion of the advanced program and satisfaction of the requirements of the University for a baccalaureate degree, an Army Commission is awarded. In addition to permission of the department, the applicant must be physically qualified and have completed:

1. The Army, Navy or Air Force basic military science program or
2. At least four months of active duty with one of the services of the armed forces or
3. The summer field course or
4. The equivalent of the above, as determined by the professor of military science.

Prescribed Courses:
First Semester—MS 300 Military Leadership and Management I. Three sem hours.
Second Semester—MS 301 Fundamentals and Dynamics of the Military Team I. Three sem hours.
MS 302 Leadership Laboratory must be taken in conjunction with both 300 level courses.
Summer—Advanced Summer Field Course—Students who successfully complete this field course are exempt from required physical education courses.
Third Semester—MS 400 Military Leadership and Management II. Three sem hours.
Fourth Semester—MS 401 Fundamentals and Dynamics of the Military Team 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 provided by the advanced program may be used as free elective credit. However, in some curriculums the ROTC students in the advanced program must take more than the minimum total of 124 hours for graduation. Students should consult their academic advisors on this matter when planning for graduation.

Uniforms, Texts, Allowances, Etc.
All uniforms and texts are provided to the student without cost. Additionally, participants receive $100 subsistence allowance per school year month and approximately $500 pay and travel allowance for the summer field course. Prior service veterans are entitled to these allowances, in addition to any other veterans benefits they are receiving.

The Flight Program
Students may apply to the Military Science Department, prior to their final school year, for admission to the flight program. This program is conducted on campus and qualifies the student to enter the Army aviation program at the time of his or her graduation. Texts, training and special flight equipment are furnished at no cost to the student.

Distinguished Military Student Program
At the beginning of the final year of the advanced course, students with outstanding academic and personal achievements are designated Distinguished Military Students. A Distinguished Military Student is eligible to apply for appointment as a career officer in the Regular Army.

The ROTC Scholarship Program
Upon completion of the first semester of the basic program, students may apply for ROTC scholarships of three years duration. Scholarships are awarded on a best qualified basis and include payment of all fees, texts and tuition costs related to the student's curriculum for the stated period, plus a monthly cash stipend of $100.

MINOR IN MILITARY SCIENCE

Prescribed Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>100</td>
<td>The United States Defense and National Security I</td>
<td>2</td>
</tr>
<tr>
<td>101</td>
<td>The United States Defense and National Security II</td>
<td>2</td>
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<tr>
<td>200</td>
<td>Topography and Terrain Appreciation</td>
<td>2</td>
</tr>
<tr>
<td>201</td>
<td>A History of American Military Development</td>
<td>2</td>
</tr>
<tr>
<td>300</td>
<td>Military Leadership and Management I</td>
<td>3</td>
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<tr>
<td>301</td>
<td>Fundamentals and Dynamics of the Military Team I</td>
<td>3</td>
</tr>
<tr>
<td>400</td>
<td>Military Leadership and Management II</td>
<td>3</td>
</tr>
<tr>
<td>401</td>
<td>Fundamentals and Dynamics of the Military Team II</td>
<td>3</td>
</tr>
</tbody>
</table>

Total: 20 credit hours

Note: Students electing a minor in military science may not use this minor to fulfill the state secondary certificate requirement of a teaching minor.

COURSES

100 The United States Defense and National Security I
First year basic. Two sem hours
A study of the various factors of national power and how these factors are meaningful today. The United States defense treaty system is reviewed as well as selected military programs which the United States has in the underdeveloped portions of the world. The course provides an introduction to the Department of Army organization, stressing the magnitude of management responsibilities and the relationships with other armed services. Included are United States Army missions and functions, the organization and role of the Department of Defense, the missions and functions of the other armed services and the concept of operation of the various unified and specified commands. A survey is given to the definition, causes and nature of the spectrum of conflict.

101 The United States Defense and National Security II
First year basic. Two sem hours
The course presents an overview of the functional organization of the units in the Army from Department of the Army to the Infantry squad. A survey is given to functions of the various branches of the service and the responsibilities of the officers within each branch. The course also presents an introduction to leadership and problem solving. A laboratory complements this course by offering practical applications of concepts developed within the classroom.

102 Leadership Laboratory, First year basic
The laboratory provides demonstrations and practical problem solving for the beginning student, with the objective of developing poise, confidence, self-discipline and an understanding of military customs. Additionally, group behavior
situations are presented as a vehicle for experience in the development of teamwork and esprit de corps.

200 Topography, Terrain Appreciation and Small Unit Employment, Second year basic. Two sem hours
A study of aerial photographs, maps and mapping, with special attention to grids, grid systems, map symbols and their relationship to the actual terrain. Additionally, the influence of terrain in the planning and conduct of military operations is examined in detail. The study course is complemented by laboratory periods of applicable exercises.

201 A History of American Military Development, Second year basic. Two sem hours
A textual and case study approach is used to examine the history of the art of warfare. Emphasis is given to the tactical lessons and leadership techniques demonstrated in significant American campaigns and engagements. Relations between tactical, logistical, technical, social and political developments are examined for their influence on military developments. The course is complemented by laboratory periods of applicable exercises.

202 Leadership Laboratory, Second year basic. A laboratory to provide controlled leader experience in problem solving. Techniques learned from classroom experience are applied in the areas of basic unit tactics, weaponry and terrain analysis.

300 Military Leadership and Management I, First year advanced. Three sem hours
A study of basic techniques of leadership and management with special attention to the teaching and organizing role of the military leader. Consideration is given to the psychological, physiological and sociological factors affecting human behavior. Stress is placed on the problems inherent in the planning, preparation and presentation of learning experiences to others. Suggested techniques are applied by the student as he presents and evaluates instruction. Various concepts of group organization are examined with the objective of identifying effective techniques of coordination, communication and delegation of authority by the decision maker. A survey is given to fundamental procedures of parliamentary, panel and conference procedures. A laboratory of applicable exercises complements this course.

301 Fundamentals and Dynamics of the Military Team I, First year advanced. Three sem hours
This course will emphasize to the student the leader's role in directing, planning and coordinating individual and team efforts in the execution of a variety of missions by organizations ranging in size from ten to eight hundred men. The course will cover the principles of command and executive control, leadership techniques and the communication and management systems used in the control of small organizations. The student will be familiarized with the roles and missions of the various branches of the Army. A section of this course will examine the principles and nature of internal Defense/Development. A case history approach is used to identify insurgency and counter-insurgency methods and procedures in selected countries. A laboratory of applicable exercises complements this course.

302 Leadership Laboratory, First year advanced. Leadership laboratory conducted for both semesters of 300 level courses. Throughout a series of field type courses, the student plans, organizes, and conducts tactical exercises and instructional periods. Performance measurements are accomplished through critique and peer evaluations.

400 Fundamentals and Dynamics of the Military Team II, Second year advanced. Three sem hours
This course provides an understanding of command and evaluation, organization and functions using the division staff as a model. Processes for arriving at sound and timely decisions and the translation of decisions to plans and orders are stressed. Military intelligence, procedures for obtaining it and its uses in the formulation of decisions are included. Special problems introduce long-range planning and the coordination of diverse groups and activities. Experience is provided in the problems of personnel evaluation and selection and in gaining and maintaining of morale and discipline within a group. A laboratory of practical exercises complements this course of study.

401 Military Leadership and Management II, Second year advanced. Three sem hours
A study of world change and military implications with special attention to their influence on management of forces. Suggested methods of measuring international relations are identified and applied in student analysis of United States relations with selected nations. Emphasis is directed toward the influence of armed forces within national power structures. The semi-diplomatic roles required of officers in foreign assignments is also examined. A section of this course is devoted to a study of basic concepts of effective administration and their application to the management of military forces. Included is a familiarization with the fundamentals of military law, including the procedures by which judicial and non-judicial disciplinary measures are conducted. A laboratory including practical exercise and student writings is conducted one hour per week as a complement to this course.

402 Leadership Laboratory, Second year advanced. This is a two semester practicum conducted in conjunction with 400 level courses. The cadet brigade command and staff structure is utilized as a vehicle to provide practical experience in the planning, execution and evaluation of activities involving concepts and procedures developed in the classroom during the year. Long range projects provide experience in the management of diverse organizations, equipment and services.
FIELD SERVICES

Director: Earl K. Studt
Associate Director: Pending
Coordinator University Conferences: Frederick J. Peters
Pupil Transportation Services Director: Dale Benjamin
Consultant: Special Services: Ralph L. Steffek

Today, more than ever before, Eastern Michigan University is realizing its responsibility to offer its services and facilities to the community at large. For many years, 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. In the last few years, the services provided by the Division of Field Services have taken on new dimension. The in-service courses are now available at 17 centers in 14 counties in southeastern Michigan. 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. Trained personnel as well as faculty members are available for lectures and consultation services to clubs, organizations and school systems.

The Division of Field Services welcomes inquiries about its program as well as suggestions for other services it might offer. Interested persons should write to the director of the Division of Field Services, 113 Sherzer Hall, Eastern Michigan University, Ypsilanti, 48197.

IN-SERVICE COURSES

The Division of Field Services offers credit courses in 17 established centers throughout southeastern Michigan: Adrian, Brighton, Center Line, Cherry Hill, Flint, Jackson, Lapeer, Marlette, Monroe, Mt. Clemens, Plymouth, Port Huron, Sandusky, Southgate, Taylor, Trenton and Wayne. These classes are undergraduate and graduate courses conducted by regular instructors of Eastern Michigan University. Presently, the classes are in practically any field connected with education. A list of the courses offered for fall and winter semesters, spring and summer sessions may be acquired from the director of the Division of Field Services. The following regulations apply to these courses.

General Procedures and Regulations of Open Center Courses

1. 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.
2. Students must make application for in-service courses to the director of the Division of Field Services, Eastern Michigan University, Ypsilanti, Michigan 48197.
3. Students are held to the same requirements concerning distribution of courses taken by 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 registrar.
4. No course will be offered for credit in in-service courses which is not a part of the regular curriculums of Eastern Michigan University.

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 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.
4. It is expected that students contemplating 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. Under no condition will academic credit be given once a person is enrolled as an auditor.

FEES

1. The undergraduate and graduate fee for in-service courses is $32.00 per credit hour.
2. The Division of Field Services makes no provision for partial payment or delayed payment of fees.
3. Enrollment of 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. Enrollments not completed prior to the first meeting date are subject to assessment of $5.00 late enrollment fee.
4. A $2.00 charge will be made for payment with a non-negotiable check.
5. A complete refund of fees will be made if requested prior to the date of the second class meeting.
6. Sixty percent will be refunded if requested prior to the date of the third class meeting.
7. No refund will be made after the third class meeting.
8. Requests for refunds must be made in writing directly to the Division of Field Services (not to the instructor).
9. The effective date of withdrawal is the date on which the request is postmarked.
10. Overpayments will be refunded only when the amount exceeds the charge by $1.01 or more, unless a request for refund is received from the remitter.
11. All veterans eligible for educational benefits under the new G.I. Bill must furnish the Veterans Affairs Office at the University with their Certificate of Eligibility prior to the first meeting of the classes. They must complete the necessary registration with the Division of Field Services and pay the full fees.

CONTRACT COURSES

The Division of Field Services 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.

UNIVERSITY CONFERENCES

Eastern Michigan University opens its campus to the public for conferences and workshops. The Division of Field Services is ready to assist any group in planning a workshop or con
ference on a credit or a non-credit basis. Trained staff will aid in arranging for meals, housing, suitable meeting facilities and recreation and in securing specialists in 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:

**Modern Dance Workshop:** This workshop is planned to enrich knowledge and increase skill in modern dance through the development of sound technique and the understanding of dance as a performing art. Curriculum includes beginning and advanced technique, composition and repertory. Special sessions will include films, rehearsals, folk dance and experiences in other dance forms. Graduate seminar in dance offered concurrently with the school workshop.

**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.

**Baton Twirling Clinic:** A complete, concentrated five-day program presented by the finest professional instructors.

**Summer Session for High School Instrumental Musicians:** Provides attractive opportunity for young musicians to study and perform under the direction of Eastern Michigan University music faculty and visiting artists.

**Annual Choral Arts Workshop for High School Students:** An intensive two-week experience emphasizing both group and solo performance skills. Class procedure provides daily private lessons in voice as well as classes in theory and music literature. Choral arts students will also study musical production, acting and stage movement. There will be recitals for individual performers, as well as large and small ensembles.

**"The University of Cheerleading:"** Collegiate staff instructors, affiliated with the International Cheerleading Foundation, Inc., teach high school squads every phase of cheerleading, pep and spirit.

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 University Conferences, Division of Field Services, Eastern Michigan University, Ypsilanti, Michigan.

**TRAVER TOURS AND WORKSHOPS**

Each spring and summer, Eastern Michigan University, through the Division of Field Services, 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-Upon Avon, 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**

**Summer Study in Edinburgh, Scotland:** Sponsored by the Interver University International Teacher Education Council in cooperation with Eastern Michigan University and conducted at the University of Edinburgh. Courses in history, literature and education; includes lectures, discussions, groups and field trips.

**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.

**Studies in the Humanities:** An interdisciplinary team-taught course which will center on the 19th Century Romanticism in literature, art and music.

**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.

**Early American Life in Colonial Williamsburg:** Through the cooperation of Colonial Williamsburg and the College of William and Mary, this very popular workshop is offered each year in August. The two-week workshop gives the student an excellent opportunity to study colonial American life in this famous restored capital of the Virginia colony.

**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.

**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 director of the Division of Field Services.
CONSULTATION SERVICES

Eastern Michigan University is ready to assist any school in Michigan in solving its problems. The Division of Field Services will aid in making school surveys, will advise on school organizations, equipment, courses of study, methods of instruction and will evaluate current programs. Consultants and trained personnel are furnished ordinarily on a fee basis to the public school or other agency requesting them.

LIBRARY SERVICES

The Eastern Michigan University Library places its facilities at the disposal of all students taking classes through the Division of Field Services. 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 an identification card (identification cards 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 have been designed to meet the educational needs of undergraduate students. Upon completing enrollment in an independent study course, students receive a course guide that outlines, in detail, all course work assignments. The students submit the required assignments by mail. Each assignment is reviewed and evaluated by a member of the faculty who has been designated as the instructor for the course. When all assignments have been completed and evaluated, the students take a proctored final examination. Students may earn up to 15 semester hours of academic credit to be applied toward an undergraduate degree.

General Procedures and Regulations

1. Students make application for independent study through correspondence courses to: Independent Study Through Correspondence, Division of Field Services, 113 Sherzer 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 coursework. Application blanks and details of the admission procedure may be obtained by writing to: Office of Admissions and Financial Aids, Eastern Michigan University, 212 Pierce Hall, Ypsilanti, Michigan 48197.
4. Students working toward a degree to be awarded by Eastern Michigan University are held to the same requirements concerning distribution of courses as those taken by students in residence. Students should consult outlines of curriculums published in the University catalog, make their selections of work and consult the dean of academic records and teacher certification regularly.
5. Students should plan for one or more meetings on campus with the assigned instructor.

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 students, a limited extension of time may be granted by the head of independent study through correspondence.
2. Independent study through correspondence courses are 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 and to pace themselves at optimum work levels.

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 academic advising.

Fees

1. A fee of $32.00 per credit hour will be charged, payable at the 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 course 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 Library.
5. Credits will be withheld until all obligations are met and all delinquent fees and charges are paid.
List of 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. Courses starred are temporarily unavailable.

Biology

301 Genetics. Three sem hours
The basic principles of inheritance, with their application to plants and animals.
Prereq: 221 General Botany or 222 General Zoology or equivalent.

*405 Organic Evolution. Two sem hours
The processes involved in the origin and evolution of life, and the implication for biology and our current world view.
Prereq: 221 Botany, 222 Zoology, 301 Genetics (230 Historical Geology desirable).

Economics

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 but plan to take no other course in economics.
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.

320 Labor Problems. Two 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: 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.

Education

302 Educational Psychology. Three sem hours
Applies the general psychological principles of learning and to the development of personality.

*303 Principles of Teaching. Three sem hours
Application of the principles of psychology and teaching to the classroom. (Must be taken the semester immediately preceding student teaching).

*321 Child Psychology. Three sem hours
The study of mental, physical, social and emotional aspects of child development from conception to adolescence. (Not open to students in early elementary or junior-senior school curriculums).

*340 Evaluation of Pupils. Two sem hours
The study of kinds of administration of, scoring of, and interpreting results of tests used in elementary and secondary schools.
Prereq: 326 School and Society or 303 Principles of Teaching.

English

101 The Reading of Literature. Three sem hours
Reading and discussion of narratives and essays from representative literature of the present as well as of the past: short stories, novels, narrative poems and essays from American and other literatures.

121 English Composition. Three sem hours
The fundamental skills of reading and writing, including a study of grammar, sentence structure, punctuation and organization of simple material: the reading and analysis of prose selections; frequent papers.

207 Introduction to Children's Literature. Three sem hours
A concentrated reading course designed to impart the knowledge necessary for an appreciation and understanding of children's literature and its use in the schools. In addition to reading the classics and the critically acclaimed works of both fiction and non-fiction by modern writers, students will study poetry, folklore and mythology, and examine the relationship between illustration and text. Does not count toward major or minor in curriculums for teachers in junior and senior high school.
Prereq: Sophomore standing.

210 Shakespeare. Three sem hours
An intensive study of five of the principal tragedies with supplementary study of Shakespeare's handbook.

*215 Journalism. Three sem hours
Study of the elements of journalism with practice in the writing of news stories, feature articles and editorials.
Prereq: Sophomore standing.

325 Expository Writing. Three sem hours
Writing and analysis of several forms of exposition.
Prereq: Sophomore standing.

302 Modern English Syntax. Three sem hours
Study of the forms and functions of words and word groups in modern English.
Prereq: Sophomore standing.

305 Shakespeare The Major Comedies and Histories. Three sem hours
Study of at least eight of the principal comedies and histories.
Prereq: Three literature courses.

319 English Literature, 1744-1790. Three sem hours
Study of poetry, essays, letters, novels, dramas of Fielding, Johnson, Goldsmith, Gray, Collins, Smollett, Sheridan, Cowper, Burns, Blake, etc.
Prereq: Three literature courses.

*331 The Nineteenth Century Novel. Three sem hours
A critical reading of the English novel from Scott to Hardy.
Prereq: Two courses in literature.

*401 Modern American and British Poetry. Three sem hours
A study of the chief poets of England and America since 1900.
Prereq: Three literature courses.

*403 Modern Drama. Two sem hours

404 English Literature 1793-1832. Three sem hours
Prereq: Three courses in literature.

*407 Victorian Prose. Three sem hours
108 Earth Science. Four sem hours
The important aspects of the physical environment of man.
The earth as a planet, landforms, weather and climate, water,
soil, vegetation and mineral resources. A requirement for both
the major and minor in geography and geology.

110 World Regions. Three sem hours
An attempt to develop a tolerant understanding of peoples
through an appreciation of the cultural and natural environ­ments
in which they live. Background information on selected
world regions with emphasis on economic and social geog­raphy. The present occupations and activities of the popula­tion
in each region. A requirement for both the major and minor in geography.

211 Geography of the United States and Canada. Three sem hours
213 Geography of Michigan. Two sem hours

History and Philosophy

101 History of Western Civilization. Three sem hours
The classical heritage and the civilization of the Middle Ages
and the Renaissance in historical perspective. Cultural develop­ment
and institutional growth are emphasized.

102 History of Western Civilization. Three sem hours
A continuation of 101 History of Civilization. The study of
cultural developments and the growth of institutions in the
17th and 18th centuries; social and economic changes in modern times.

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.

American History

123 Major Trends in United States History. Three sem hours
A study of American democracy through the rise of our politi­
dividualism, sectionalism, the implication of disunion in the
Civil War, the growth of industry, the labor movement, social
reform programs and present world responsibility and leader­ship.

223 American History to 1877. Three sem hours
A study of United States history from the period of exploration
through the Reconstruction of the South following the Civil War.

224 American History, 1877 to the Present. Three sem hours
A study of the United States history from the end of Recon­struction to the present.

313 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.

Ancient and Medieval History

323 Greek History. Three sem hours
A history of ancient Greece from the Bronze Age to the Roman conquest.

324 Roman History. Three sem hours
Ancient Rome from prehistoric background through the age of Justinian.

European History

331 Europe from Absolutism to Revolution, 1648-1815. Three sem hours
Emphasis rests on the commercial revolution and political
development in European nations. The Renaissance and
Protestant Reformation are studied in relation to the Puritan
Revolution in England, the ideas of the Enlightenment, the
French Revolution and the career of Napoleon Bonaparte.

332 Modern Europe, 1815-1919. Three sem hours
A study of the development and conflicts of the national
states of Europe from the Congress of Vienna to the Treaty of
Versailles.

333 Europe since 1919. Three sem hours
A history of Europe since Versailles with emphasis upon the
Communist, Fascist and Nazi revolutions, their impact on the
world; the origins and outbreak of the Second World War
and the post 1945 era. Prereq: Junior standing or permission of the department.

Political Science

113 Michigan Government. One sem hour
A brief study of Michigan's government and its contemporary
changes.

Sociology

105 Introductory Sociology. Three sem hours
A number of basic sociological concepts are used to analyze
selected aspects of American society in intergroup relations,
rural and urban communities, social classes and in family,
educational, religious, governmental and economic institu­tions.

202 Social Problems. Three sem hours
204 Marriage and Family. Three sem hours
Information pertinent to the position and significance of the
family in our changing society. Prereq: 105 Introductory Sociology.

240 Concepts of Sociology. Three sem hours
Scientific analysis of human behavior through variety of sociological studies.
Prereq: 105 Introductory Sociology.

Home Economics

113 Textiles for Consumers. Three sem hours
301 Economic Problems of Consumers. Two sem hours

Mathematics

104 Intermediate Algebra. Three sem hours
Review of elementary algebra and a continuation into the
study of functions, graphs and quadratic equations.
Prereq: One year of high school algebra.

105 College Algebra. Three sem hours
Review of elementary algebra and a continuation into the
study of functions, graphs and quadratic equations.  
Prereq: One and one half year high school algebra or 104 Intermediate Algebra.

107 Plane Trigonometry. Two sem hours

Psychology

101 General Psychology. Three sem hours
Scientific methods, principles and theories evolving from the analysis of the behavior of man and other animals.

BLACK STUDIES AT EASTERN MICHIGAN UNIVERSITY

Director: Gerald McIntosh

The over 400 year struggle of black people for liberation, equality, and inclusion into the mainstream of American life has resulted (particularly during the last decade) in the development of an increased awareness at all societal levels of the multi-faceted obstacles faced by this large segment of the American populace. During the later 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 programmatically 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 responded to this expressed need by creating courses which provide students the opportunities to develop insights and understanding of the "black experience" in America. More important, students majoring in social science disciplines who have not been academically exposed 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 over the past five years (10,200 students in 1965 vs. more than 18,000 students presently) Eastern Michigan University boasts a more racially and ethnically diversified student population which necessitates the development of curriculums reflecting that pluralism.

Goals of Black Studies at Eastern Michigan University

1. To develop attitudes that will improve relationships between 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 the 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, lifestyles, 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 Black Studies minor and an individual concentration. Minor students who plan to pursue the Bachelor of Arts or the Bachelor of Science degree may use the Black Studies minor to fulfill their minor requirements. Any student who selects the Black Studies minor will be expected to meet Basic Studies requirements as well as the major and general elective requirements of the University.
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 Black Studies. A major is not offered at this time, but 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 curriculum will have satisfied all major requirements for graduation. Any student who selects the Individual Concentration in Black Studies will be expected to meet Basic Studies and general elective requirements.

I. Black Studies Minor (20 hours)

Semester Hours

Required courses .......................................................... 12
Each student who minors in black studies will be expected to complete the following set of required courses:

101 Black Studies: An Introduction ................. 3
201 Black Studies II ............................................. 3
998 Independent Study of Afro-American Issues .................................................. 2
or
999 Independent Study of Afro-American Issues .................................................. 3

Minor electives ......................................................... 8
There are two areas of concentration or emphasis in the Afro-American Studies Program. One of the areas is the communicative arts, and the other is cultural sciences. Electives may be chosen from one of the two areas. Selection from both to fulfill minimal minor requirements requires permission of the director of Black Studies.

II. Communicative Arts Electives (8 semester hours)

ART
222 African and Afro-American Art .................. 3
420 History of Primitive Art .................. 3

ENGLISH
260 Afro-American Literature ................. 3

DRAMATIC ARTS
101 Black Theatre: An Introduction ............. 3
201 Black Theatre: Creative Problems ........... 3

III. Cultural Sciences Electives (8 semester hours)

ANTHROPOLOGY
236 Peoples of Africa .................. 3
249 Peoples and Cultures of the Caribbean ........ 3
336 Social and Cultural Change .................. 3

ECONOMICS
320 Labor Economics .................. 3
321 Black Workers and the Labor Market ........ 3
432 Urban Economics .................. 3

GEOGRAPHY
322 Geography of Africa .................. 3
332 Urban Geography .................. 3

HISTORY AND PHILOSOPHY
103 History of Non-Western Civilization ........ 3
315 History of Black Americans ................. 3
365 The Old South .................. 3
377 History of Sub-Saharan Africa .................. 3
340 The Middle East and North Africa to 1798 ........ 3

POLITICAL SCIENCE
372 Government and Politics of Sub-Saharan Africa .................. 3

PSYCHOLOGY
340 Psychological Perspectives in Prejudices and Discrimination .................. 3

SOCIOLOGY
214 Racial and Cultural Minorities .................. 3
306 The Urban Community .................. 3
309 Culture and Personality .................. 3

COURSES

101 Afro-American Studies: An Introduction. Three sem hours

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

201 Afro-American Studies II. Three sem hours

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

301 Afro-American Contemporary Issues Seminar. Three sem hours

This course will provide students with (1) specialized information on the Afro-American in the context of urban living and (2) primary learning experiences and perspectives into the most recent issues and problems. Prereq: 101 Afro-American Studies: An Introduction and 201 Afro-American Studies II.

498 Independent Study. Two sem hours

499 Independent Study Three sem hours

Independent study, under the supervision of the center staff, of a selected topic. Possible approaches include library research, field research and participant observer experiences. Prereq: 101 Afro-American Studies: An Introduction, 201 Afro-American Studies II, 301 Afro-American Contemporary Issues Seminar. junior standing, and permission of the department.
THE CENTER FOR THE STUDY OF CONTEMPORARY ISSUES

Director: Monroe P. Friedman

This new University center was established in 1970 to study some of the major contemporary issues confronting society. The bulk of the center's efforts will be directed toward the development and execution of an issue-oriented instructional program. In addition, the center will explore various program possibilities in research and community service. With regard to the instructional program, a number of critical issues have been identified (see the titles of the 300-level seminar courses listed below), and courses to deal with these issues have been structured by faculty members from some fifteen academic departments at the University.

In each academic year, center courses dealing with three of these issues will be offered as electives to Eastern students. In each course, the issue will be defined, its historical roots identified, and various alternatives examined for resolving the issue in the future.

The instructional program of the center will be carried out by a staff consisting of a director, three center fellows, one or more scholars-in-residence and several graduate teaching assistants. In addition, a Center Advisory Board, consisting of a representative group of University students and faculty members, will recommend a set of issues to be studied by the center in each academic year.

A major responsibility for the center will lie with the three center fellows, who will be selected from the University faculty for one-year, full-time appointments. Each fellow will be knowledgeable about one of the contemporary issues recommended for inclusion in the center program by the Center Advisory Board. He will devote his year in center residence to instructional, research and service activities relating to this issue. In performing his instructional activities, the center fellow will call upon faculty members and outside practitioners for assistance, as guest lecturers and panel participants for his courses.

Three types of center courses are offered: (1) survey, (2) seminar and (3) independent study. Students who enroll in these courses will receive elective credit in basic studies or in the social sciences (Group III). The 200-level survey courses have as prerequisites nine hours of social science (Group III) courses. Course credit earned in economics, geography, history, philosophy, political science and sociology will count toward fulfilling the nine-hour prerequisite. Additional prerequisites are specified for the 300-level courses and the 400-level independent study courses.

Since the set of three issues to be studied by the center will change from year to year, students should consult the latest class schedule for a current list of the issue-oriented courses which are being offered.

COURSES

201, 202, 203, 204, 205 Survey of Contempory Issues. Three sem hours

An overview of two or more contemporary issues selected from the 300-level seminar topics listed below. Several instructors from different academic departments participate in the teaching of the course. Since the subject matter changes from year to year, a student may take the course more than once. Topics considered each year are listed in the class schedule. Lecture: two hours per week. Recitation: one hour per week.

301 The Role of the University in the Contemporary World. Two sem hours

As the vital issues confronting a concerned citizenry have assumed an ever-greater complexity, the societal demands upon American universities have intensified. This course examines the nature of these demands and explores both proposed and actualized university models for coping with them. Prereq: Nine hours of social science (Group III) courses, junior standing and permission of the department.

303 The Impact of Technology on Man. Two sem hours

A study of the effects of the "technological revolution" on the quality of human life. Proposed mechanisms are examined for managing the new technology in ways which will serve the interests of man. Prereq: Nine hours of social science (Group III) courses, junior standing and permission of the department.

305 Securing Environmental Quality: The Challenge for Man. Two sem hours

A study of the forces which threaten environmental quality, such as air and water pollution, crowding and noise. The nature of these forces and proposals for dealing with them are examined from a cross-disciplinary perspective. Prereq: Nine hours of social science (Group III) courses, junior standing and permission of the department.

307 The Right of Privacy in an Open Society. Two sem hours

An examination of physical, psychological and data surveillance techniques which have made it possible for personal information to be collected and disseminated without the knowledge or permission of the individuals involved. Also examined are attempts at reconciling the individual's desire for privacy with the desire of societal institutions and organizations for more information of a personal nature. Prereq: Nine hours of social science (Group III) courses, junior standing and permission of the department.

309 The Challenge of the Emerging Nations. Two sem hours

A study of the efforts by the developing nations of Asia, Africa and Latin America to solve their economic and social problems. The role of the economically advanced nations in supporting these efforts is examined as well as the impact of these developments on the world order. Prereq: Nine hours of social science (Group III) courses, junior standing and permission of the department.

311 Poverty in America. Two sem hours

A cross-disciplinary analysis of poverty in the United States. Existing socio-economic structures and institutions which affect poverty are examined, and proposals to improve the lot of the poverty-stricken are evaluated. Prereq: Nine hours of social science (Group III) courses, junior standing and permission of the department.

313 Violence in America. Two sem hours

An examination of current patterns of violence in America, their historical and philosophical roots and the effectiveness of various programmatic efforts for reducing violence. Prereq: Nine hours of social science (Group III) courses, junior standing and permission of the department.

315 Censorship and the Free Society. Two sem hours

An examination of efforts to prohibit or restrict types of expression believed to threaten the social, political or moral order. The implications of such censorship practices for a free society are explored for various communications media. Prereq: Nine hours of social science (Group III) courses, junior standing and permission of the department.
317 The Population Explosion. Two sem hours
An exploration of the rapid growth of world population and its implications for the present and future quality of human life. Proposed mechanisms for controlling population are examined and evaluated.
Prereq: Nine hours of social science (Group III) courses, junior standing and permission of the department.

319 Militarism in Contemporary America. Two sem hours
An examination of the concept of militarism and its role in contemporary American society. Particular emphasis is given to the manifestations of militarism in government, business, science, education and the communications media, and the implications of these influences for the future.
Prereq: Nine hours of social science (Group III) courses, junior standing and permission of the department.

321 Drugs: Uses, Abuses and Controls. Two sem hours
This course deals with medical, psychological, social and educational problems arising from drug uses and abuses. Proposed solutions to these problems are examined from various perspectives.
Prereq: Nine hours of social science (Group III) courses, junior standing and permission of the department.

323 Private Enterprise and the Public Interest. Two sem hours
An examination of potential sources of conflict between private enterprise and the public interest. Attention is given to current issues and efforts to resolve them, as well as the social, economic and political constraints involved in the resolution process.
Prereq: Nine hours of social science (Group III) courses, junior standing and permission of the department.

325 Resolving Racial Conflict in America. Two sem hours
An examination of past, present, and likely future efforts to resolve racial conflict in America.
Prereq: Nine hours of social science (Group III) courses, junior standing and permission of the department.

327 The World in the Year 2000. Two sem hours
This course explores possible worlds of the future from both descriptive and prescriptive perspectives. Various forecasting techniques are examined and evaluated.
Prereq: Nine hours of social science (Group III) courses, junior standing and permission of the department.

329 The Rights of Women in Contemporary America. Two sem hours
An examination of the issue of women's rights in the United States. The course explores various social, scientific and humanistic approaches to the issue in such areas as education, employment and politics.
Prereq: Nine hours of social science (Group III) courses, junior standing and permission of the department.

331 The Energy Crisis and Human Survival. Two sem hours
An examination of the nature and causes of the energy crisis, as well as its implications for the future of mankind. Particular attention is given to various policy alternatives for coping with present and future energy shortages, as viewed from the perspectives of the physical and social sciences.
Prereq: Nine hours of social science (Group III) courses, junior standing and permission of the department.

333 Old Age in America: Problems and Prospects. Two sem hours
An examination of the status of the elderly in America. Particular attention is given to the psychosocial, economic and physical problems of this group, and their cultural and historical origins. Also examined are various proposals for alleviating these problems.
Prereq: Nine hours of social science (Group III) courses, junior standing and permission of the department.

335 Alienation in Contemporary America. Two sem hours
A cross-disciplinary analysis of the character and causes of alienation in America today. The course draws upon the perspectives of the social and behavioral sciences as well as the arts and humanities, to gain insights into the nature of alienation and its likely role in human affairs in the future.
Prereq: Nine hours of social science (Group III) courses, junior standing and permission of the department.

497 Independent Study of Contemporary Issues. One sem hour
Prereq: Nine hours of social science (Group III) courses, junior standing and permission of the department.

498 Independent Study of Contemporary Issues. Two sem hours
Prereq: Nine hours of social science (Group III) courses, junior standing and permission of the department.

499 Independent Study of Contemporary Issues. Three sem hours
Independent study, under the supervision of the center staff, of one or more selected contemporary issues. Possible approaches include library research, field research and participant-observer experiences with government and community agencies.
Prereq: Nine hours of social science (Group III) courses, junior standing and permission of the department.
Office of International Studies

Director: Erma F. Muckenhirn

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 described below, many other opportunities to study abroad sponsored by 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 or winter trimester with a comparable number of second-year students at universities in England. They are accompanied by an Eastern Michigan University faculty member.

Students pay fees for room, board and tuition directly to Eastern Michigan University. They receive approximately 15 semester hours and three activity hours of credit at EMU during the trimester abroad.

A program is planned for each individual student which takes into account his or her particular needs. Interviews, orientation meetings and individual conferences are held prior to departure.

Selection of students for the exchange program is based upon several factors, including an interview with representatives of the Student-Faculty International Exchange Committee.

The two English colleges which participate in the program are Berkshire College of Education, Reading, and Coventry College of Education, Coventry. Reading is located approximately 30 miles west of London, and Coventry is about 100 miles north-west of London, near Stratford and Birmingham. Each college has a student body of approximately 1,300, and all of the students are preparing to become teachers. Dormitory facilities, food, classrooms, social and recreational opportunities are comparable to those at Eastern Michigan University. In addition, there is the opportunity for living and learning within another culture, including the chance to travel, visit English schools and make new friends and acquaintances.

Students are expected to provide their own transportation costs. This is the only additional required expense of an exchange student beyond that which he would normally spend if he were in residence in Ypsilanti. However, if the student wishes to travel in Great Britain or on the Continent during holidays he may anticipate additional expenses.

2. Semester of Study at the University of Copenhagen for Juniors

A limited number of Eastern Michigan University juniors have the opportunity to study for one semester at the University of Copenhagen. Courses are offered in a variety of academic fields. The language of instruction is English and students earn 15 semester hours of credit. The program is conducted in cooperation with Denmark's International Student Committee.

3. Spring Programs Abroad

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
Art Department, College of Arts and Sciences

Shakespeare and Shakespeare Country—Stratford-Upon-Avon, England
English Language and Literature Department, College of Arts and Sciences

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. These programs include:

Workshop in British Education—Reading, England
Social Foundations Division, College of Education

Workshop in East African Education—
Social Foundations Division, College of Education

Workshop in Education in India and the Philippines—
Social Foundations Division, College of Education

The Open Classroom—Reading, England
Curriculum and Instruction Division, College of Education

European History Study Tour—Munich, Germany
History and Philosophy Department, College of Arts and Sciences

Summer Study in England—Edinburgh, Scotland
Interdisciplinary
English Language and Literature Department, History and Philosophy Department, College of Arts and Sciences
Curriculum and Instruction Department, College of Education

Overseas Film Program—London, England
English Language and Literature Department, Speech and Dramatic Arts Department, College of Arts and Sciences

Modern British Drama—London, England
English Language and Literature Department, Speech and Dramatic Arts Department, College of Arts and Sciences

European Cultural History Program—Austria, Germany, Italy
History and Philosophy Department, College of Arts and Sciences

Studies in Humanities—Munich, Germany
Interdisciplinary, College of Arts and Sciences

Information about these programs may be obtained from the Office of International Studies or the appropriate department.

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 or winter trimester at Edinburgh University, Edinburgh, Scotland.

Students pay their tuition at Eastern Michigan University. They arrange for their board and room in Edinburgh with the assistance of University officials.

Up to 15 semester hours credit in education may be earned. A program will be planned for each student which will take into account his or her particular needs.

Students are expected to provide their own transportation costs. This is the only additional required expense.
be beyond that which would normally be spent by a student in residence in Ypsilanti. However, if the student wishes to travel in Great Britain or on the Continent during holidays he may anticipate additional expenses.

6 Programs Sponsored by the American Association of State College 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 at the University of the Americas.

(c) A Year's Study in Rome. Louisiana Tech University at Ruston, Louisiana, has developed a study center in Rome which is 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.

GRADUATE SCHOOL

Dean: Pending
Acting Dean; Associate Dean: Clyde E. LeTarte
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,
- 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 or special 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 the 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 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 requirement of the Permanent/Continuing Certificate.

ADMISSION REQUIREMENTS

Admission to the Graduate School of Eastern Michigan University is open to anyone who (1) holds a bachelor's degree from an accredited college or university, (2) has a minimum undergraduate grade point average of 2.0 (C) or above, (3) indicates promise of success in graduate study, (4) meets the additional requirements established by departments offering graduate programs in specialized areas. Additional requirements often include: high grade point averages, admission tests, valid teaching certificates and/or personal interviews.

A student enrolling for graduate work for the first time at Eastern Michigan University must: (1) complete an application for admission form, (2) submit an official copy of transcripts of undergraduate and graduate credits earned at other
Types of Admission

Teacher Certification
For applicants who seek to qualify for provisional/permanent certification only. Applicants seeking continuing certificates are urged to seek admission to a degree program.

Non-Degree
For applicants who do not seek/do not qualify for degree admission but who wish to take graduate courses for self improvement.

Degree
For applicants who seek an advanced degree at Eastern Michigan University at the master's or specialist's degree level.

Special Requirements (Degree Admission)
Meet entrance requirements of the college/area of specialization selected.
College of Business: A.T.G.S.B. scores required.
College of Education: valid teaching certificate required, unless waived.
Department of Psychology: G.R.E. scores required.
Department of Educational Psychology: Miller Analogies Test scores required.

Guest Student
For students who currently hold graduate admission at another college or university who wish to earn credit at Eastern Michigan University to be transferred. Applicants must file an Eastern Michigan Guest Application not later than 15 days prior to the beginning of the semester or session in which they seek to enroll.

DESCRIPTION OF DEGREE PROGRAMS

Brief descriptions of each of the graduate degree programs offered by Eastern Michigan University may be found in the Graduate Catalog. For additional information, please contact the head of the department in the area of graduate specialization chosen for study.

SCHOLARSHIPS, ASSISTANTSHIPS AND FELLOWSHIPS

Eastern Michigan University makes available a limited number of scholarships, assistantships and fellowships to students with outstanding academic records. Graduate students wishing to apply for such positions should write to the head of the department in the area of graduate specialization chosen for study.

Other Financial Aids
Contact the Office of Admissions and Financial Aids.
CO-CURRICULAR PROGRAM

The co-curricular program expands in depth and breadth the educational experiences available in the curriculum. In a sense, it acts as a laboratory. As such, it provides student-directed opportunities for growth in leadership, adherence to group goals, initiative, creativity and self-evaluation. Defined in these terms, the co-curricular program moves with the intellectual life and liveliness of the academic community, as well as with the socio-cultural dynamics in the communities outside of the University.

Several offices and departments contribute most to the co-curricular program of the University, i.e., Office of Student Life, Religious Affairs, Foreign Student Advising and Minority Affairs as well as the departments of Music, 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 represent major organizations.

JUDICIAL SYSTEM

The major discipline hearing board at EMU is the University Judicial Board (UJB). A majority of its members are students. The appellate board of the UJB is the Disciplinary Review Board. Its membership includes equal numbers of faculty, students and 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 serving in the minority.

ADVISORY AND COORDINATING

Commuter and Off-Campus Student Association
Hospitality Committee
Student Advisory Committee to the Educational Leadership Department
Student Advisory Council to the College of Arts and Sciences
Office of Student Life

FRATERNAL

Honorary and Professional

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

Alpha Kappa Psi (Men's Business)
Delta Psi Kappa (Women's Physical Education)
Delta Sigma Pi (Men's Business)
Kappa Delta Pi (Education)
Kappa Kappa Psi (Men's Band)
Mortar Board (Senior Women)
Mu Phi Epsilon (Women's Music)
Phi Gamma Nu (Women's Business)
Phi Mu Alpha Sinfonia (Men's Music)
Pi Omega Pi (Business Education)
Pi Theta Epsilon (Occupational Therapy)
Scabbard and Blade (Military)

Stoic Society (Honor Students)
Tau Beta Sigma (Women's Band)

Sororities

Panhellenic Council is the governing and coordinating body for social sororities.

Alpha Gamma Delta
Alpha Kappa Alpha
Alpha Omicron Pi
Alpha Sigma Tau
Alpha Xi Delta
Delta Sigma Theta
Sigma Kappa
Sigma Nu Phi
Sigma Sigma Sigma
Zeta Phi Beta
Zeta Tau Alpha

Fraternities

Interfraternity Council is the governing and coordinating body for social fraternities.

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

SERVICE

Alpha Phi Omega (Men)

RELIGIOUS

Bahai Club
Baptist Student Union
Black Christian Nationalist Student Group
Campus Crusade for Christ
Campus Lutheran Association
Christian Science Organization
Disciples of Christ
Eastern Christian Fellowship (IVCF)
Eastern Orthodox Student Fellowship
Episcopal
Methodist
Newman Association
Presbyterian
Religious Affairs Council
United Christian Students
United Ministries in Higher Education
United Church of Christ
Wesley Foundation
RESIDENCE HALL COUNCILS

Residence Hall Association is the governing body for residence hall councils (RHA).
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 Club
African Students Association
Amateur Radio Club
American Indian Student Association
Art Education Association
Association of the U.S. Army, Wm. O. Darby Co.
Beau Biens
Black Student Association
Black Theatre Company
Brown-Munson Tenants Association
Campus Service Corps
Catalina Club
Cheerleaders
Chicano Student Association
Chess Club
Distributive Education Club of America
Eckankar International Student Society of EMU
EMU Demolay Club
EMU Home Economics Club
EMU Players
Flying Club
Geography and Geology Club
Huronesettes
Huron Guard Drill Team
International Students Association
Kappa Beaver Sigma
Le Cercle Francais
Marketing Club
Married Students Association
Mass Spectrum
Masters in Business Students Association
Men’s Intramural
National Students Speech and Hearing Association
Occupational Therapy Club
Office of Student Life
Public Administration Association
Sailing Club
Scuba-Diving Club
Ski Club
Soccer Club
Social Work Club
SOLAR (Student Organization of Leisure, Education, and Recreation)
Student Democratic Caucus
Student International Mediation Society
Students for Human Rights Party
Students for Owen
Students for Reuther
Tae Kwon Do
Universal Great Brotherhood
U.S. Army Cadet Brigade
Veterans Association
Waldo & Magic, Inc.
The Way—Campus Outreach
W.H.U.R. Radio Station—WEMU (FM)
Women’s Collective
Women’s Intramural
Word of God Student Association
FINANCIAL AIDS
AND ENDOWMENT FUNDS

Four forms of financial aid available to Eastern Michigan University undergraduates—scholarships, grants, loans and part-time College Work-Study employment—are administered under a co-ordinated program of financial assistance, the purpose of which is to assist qualified students who have limited funds and resources. Financial aid applicants are considered for all types of financial aid for which they are eligible.

Scholarships and grants range from small awards up to and including amounts covering full tuition and living costs. Scholarships and grants for any school year are awarded in the spring preceding that year. Qualifications may vary but, in general, scholarships and grants are awarded on the basis of academic record, personal qualifications and financial need. Loans and College Work-Study eligibility are awarded on the basis of financial need.

To apply for all types of financial assistance mentioned above:

1. Submit an application to the Office of Admissions and Financial Aids. Incoming undergraduate students use the combined Admission and Financial Aid Application. All other students use the Financial Aid Application.

2. Submit a confidential financial statement to College Scholarship Service. Single dependent students use the Parents' Confidential Statement. All other students use the Student's Financial Statement.

3. Students who claim financial independence should submit an Affidavit of Non-Support.

STUDENT AID BOARD OF DIRECTORS*

<table>
<thead>
<tr>
<th>Name</th>
<th>Term Expires</th>
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<tbody>
<tr>
<td>Atwood R. McAndrew, Jr., President</td>
<td>Oct. 4, 1975</td>
</tr>
<tr>
<td>Haydn Morgan, Vice-President</td>
<td>Oct. 4, 1975</td>
</tr>
<tr>
<td>Ralph Peterson, Secretary-Treasurer</td>
<td>Oct. 4, 1975</td>
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<tr>
<td>Leslie Butler</td>
<td>Oct. 4, 1975</td>
</tr>
<tr>
<td>Augusta Harris</td>
<td>Oct. 4, 1976</td>
</tr>
<tr>
<td>Leonard Menzi</td>
<td>Oct. 4, 1977</td>
</tr>
<tr>
<td>John W. Sattler</td>
<td>Oct. 4, 1979</td>
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The Student Aid Board of Directors serves as a committee of the Board of Regents 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.

The Board of Regents welcomes at all times additions to existing funds as well as the establishment of new loan and scholarship funds.

SCHOLARSHIP FUNDS

The endowed scholarship funds administered by the University are listed below. Most of the scholarships have restrictions established by the donor and are awarded to members of particular societies or departmental majors. Further information is available from the Office of Admissions and Financial Aids.

*Honored, June 4, 1965, by the Board of Regents for having “continually sought and diligently invested funds received by the University.”

BOARD OF REGENTS
SCHOLARSHIPS

The Board of Regents has established a number of educational scholarships open to qualified full-time undergraduate students. These awards pay approximately 12 hours per term tuition to individuals producing evidence of financial need and a minimum 3.0 grade point average. These scholarships may be renewed annually with continued financial need and a minimum 2.75 grade point average.

ACADEMIC ACHIEVEMENT
SCHOLARSHIPS

*Entering undergraduate students may compete for scholarships based on academic achievement without regard to financial need. Freshman President’s and Honors Scholarships and Community College President’s and Honors Scholarships are available. Upperclass Honors Scholarships are available to undergraduate students who file financial statements and do not have financial need. Further information is available from the Office of Admissions and Financial Aids.
<table>
<thead>
<tr>
<th>Scholarship</th>
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<td>Mary Winters</td>
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<td>Bert W. Peet</td>
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*As income allows
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<td>Mary E. Campbell</td>
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*As income allows
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*As income allows

Ypsilanti Rotary Club

Not yet available
GENERAL AND SPECIAL SCHOLARSHIPS

Scholarships offered by association, 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. Among such scholarships currently offered are Detroit Edison and General Motors scholarships. Further information about these and other scholarships is available from the Office of Admissions and Financial Aids.

STATE OF MICHIGAN COMPETITIVE SCHOLARSHIPS

State of Michigan Competitive Scholarship awards pay up to full tuition and fees for the full college year. Only graduating Michigan high school seniors with no previous college experience are eligible for state scholarships. 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.

ACT 245, PUBLIC ACTS OF 1935

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. Applicants must file an application with the Michigan Veterans Trust Fund, Board of Trustees prior to the start of classes. They must complete the necessary registration with the University and pay the full tuition and fees.

ARMY ROTC SCHOLARSHIP PROGRAMS

Two programs are designed to offer financial assistance to outstanding young men 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 male 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 $100.00 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.

LAW ENFORCEMENT GRANTS AND LOANS

This federal program makes available loans and grants to students enrolled in undergraduate or graduate programs leading to degrees in areas directly related to or suitable for law enforcement careers. Grant recipients must be employed full time in a law enforcement agency unit of local government, the state or the federal government. There are no loan funds available for 1975.

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

BASIC EDUCATIONAL OPPORTUNITY GRANTS

This federally funded program assists 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 Admissions and Financial Aids for final award determination.

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, with approval and amount of each award determined by the student's need for funds. The normal maximum yearly grant is $1,000.00. 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.

BOARD OF REGENTS GRANTS

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

NURSING SCHOLARSHIPS

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

VETERANS

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.

NATIONAL DIRECT STUDENT LOANS

The federally funded National Direct Student Loan program makes available low interest, long term repayment funds up to a maximum of $1,000 each academic year ($2,500 for graduate students) to full-time students at Eastern Michigan University. 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.
NURSING LOANS

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

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 420, Lansing, Michigan 48910. Other states have similar guaranteed loan programs.

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 Admissions and Financial Aids.

UNIVERSITY SHORT TERM LOANS

Part-time and full-time students faced with emergency educational expenses and who (1) are currently enrolled at the University, (2) have earned previous academic credit at Eastern and (3) who qualify academically (minimum 2.0 "C" undergraduate, 5.0 "B" graduate) are eligible to receive funds.

LOAN FUNDS

<table>
<thead>
<tr>
<th>Loan Fund</th>
<th>Principal (as of June 30, 1974)</th>
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<tr>
<td>General Students of Eastern Michigan</td>
<td>101,826.7</td>
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<tr>
<td>University</td>
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<td>Orlo M. Gill</td>
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<td>Bertha Goodison</td>
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<td>Charles O. Hoyt</td>
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<td>Kappa Psi Alumni—Mary E. Hatton</td>
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<td>John Jacob Lam</td>
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<td>J. Don and Christine Lawrence</td>
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<td>Paul Mancell</td>
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<td>Joyce Roser McKibbon</td>
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<td>Frederick J. Newton</td>
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<td>John D. Pierce</td>
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<td>Bessie Loach Priddy</td>
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<td>Estebrook Rankin</td>
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<tr>
<td>Dimon H. Roberts</td>
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<tr>
<td>Grace E. Roberts</td>
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<tr>
<td>Abigail Roe</td>
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<td>Roosevelt High School</td>
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<td>Senior Classes</td>
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<td>Genevieve M. Walton</td>
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</tbody>
</table>

SMALL LOAN FUND

The Small Loan Fund provides small ($15 maximum) short-term interest-free loans to meet the requirements of an emergency.

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 twenty (20) hours per week while the University is in session and a maximum of forty (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.
Eastern Michigan University is located on the northwestern side of Ypsilanti on high ground overlooking the city of Ypsilanti and the Huron River Valley. The central campus consists of approximately 217 acres and an additional 203 acres have been purchased to provide room for an expanding plant to meet the needs of a rapidly growing University. Rolling wooded grounds on campus provide many scenes of natural beauty.

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.

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 and most modern in the state. The complete field house floor has been hard surfaced and the eight-lap to 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 4,350.

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 Collections operation for the payment of tuition and room and board.

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 400,000 items available for use, including books, bound periodicals, documents and microforms. Most materials 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 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 remodeled in 1967.

GOODISON HALL
Renovated in 1971 to house the Counseling Center, Dean of Students, Student Government, Student Publications, and the Women's Commission.

J. M. HOVER LABORATORY
The building, completed in 1941, houses laboratories of the Department of Biology, also a greenhouse and plant laboratory.

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 each of the above departments and greatly enhances these departments in preparing the students in this field of study.

KING HALL
Renovated in 1971 to house the Music Department, head of the department, music practice rooms and faculty; also, the Nursing Education Program, additional offices for the Special Education Department 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. This 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.

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 Frederic 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 theater seating 381, a flexible laboratory theatre, scene and costume shops, radio facilities, an outdoor amphitheater and classrooms and offices housing dramatic and other speech activities of the Department of Speech and Dramatic Arts. A classroom and office wing was added in the spring of 1966 along with studios and facilities for the University F.M. station.

ROOSEVELT BUILDING

The former Roosevelt Laboratory School has been remodeled to house the departments of Home Economics and Military Science.

WILLIAM H. SHERZER HALL

This building, erected in 1903, houses the Field Services Department and classrooms for industrial education and art. William H. Sherzer Hall also houses the Alumni Records and Mailing operation as well as the Central Bulk Mailing operation.

J. M. B. SILL BUILDING

J. M. B. Sill Building houses classrooms and offices for the Departments of Fine Arts and Industrial Education, the University Bookstore Annex, art galleries and large lecture halls used for classes in English, history, biology and earth sciences.

GLENADINE C. SNOW HEALTH CENTER

The Health Center, completed in 1959, houses the clinical services of the University health service as well as an infirmary for in-patient treatment.

MARY ANN STARKWEATHER HALL

This building, the gift of Mrs. Mary Starkweather, was erected in 1897 as the home of student religious activities at the University. Its operations are financed and directed jointly by the University and the local community. It was remodeled and modernized in 1961.

EDWIN A. STRONG
PHYSICAL SCIENCE BUILDING

This building, opened in the fall of 1957, houses the departments of Physics and Geography. Now in operation are the laboratory and lecture hall units. Classroom and museum-planetarium wings are to be added. 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 which contains the most modern and adequate facilities available. 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 this building 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 Personnel, Accounting, Payroll, Purchasing and Management Services.

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.

Jones-Goddard Residence Halls were constructed around a central court with a common kitchen and separate dining rooms for each hall. These residence halls contain 434 student areas.

Downing-Buell-Wise-Best is a four-unit complex with a central dining commons providing separate dining rooms for each residence hall. These halls contain 1246 student areas.

Phelps-Sellers-Walton-Putnam is a four-unit complex with an attached central dining commons providing a single large dining room for all residence halls. These halls contain 1200 student areas.

The newest residence halls, Hoyt-Pittman-Hill, were completed in the fall of 1969. These halls consist of three eleven-story high residence halls and a one-story dining hall. All buildings are separate and not attached, centered around a landscaped court. These residence halls contain 1404 student areas.

STUDENT APARTMENTS

The Pine Grove Terrace located on the northwest corner of the main campus contains 169 apartments. These units were built in 1955 and 1957 and are two-story, masonry units with exterior balconies. Each building contains laundry facilities. There are 140 one-bedroom units and 29 two-bedroom units.

The Cornell Courts Apartments, located on the west side of the north campus, were built in 1960 and 1966 and include six buildings containing 90 apartments and three buildings containing 45 apartments. The units are two-story masonry units with exterior balconies and each building contains laundry facilities. There are 69 one-bedroom units and 66 two-bedroom units.

The Westview Apartments, located on the west campus about one mile west of the main campus, are different from the other housing projects. These apartments are of the townhouse style giving the occupant a front and back yard with the bedrooms generally located on the second story above the living area. There are seven buildings containing 45 apartments completed in 1968 and 15 additional units containing 100 apartments were ready for the fall of 1969. There is a total of 73 one-bedroom units and 72 two-bedroom units.
SINGLE-STUDENTS APARTMENTS

The former Brown and Munson Residence Halls have been converted and remodeled into approximately 207 apartments for lease to single students for periods of 8, 10 or 12 months. Most of the units are for two people, although some apartments are for single occupancy and several others are for occupancy by four or six persons each. All apartments are basically furnished, carpeted and air-conditioned. All utilities, with the exception of telephone, are included in the monthly rent.

OTHER FACILITIES

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 placing graduating seniors and former graduates seeking new employment.

LOWELL STREET BUILDINGS

Located on the north campus is the Aquatic Biology Department and the sculpture studio for the Art Department.

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.

FIELDS AND OUTDOOR FACILITIES

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.

KRESGE ENVIRONMENT EDUCATION CENTER AT FISH LAKE

This property was purchased in 1965 as a Biological Research Field Laboratory and will be developed into a conference and field laboratory complex as funds permit. It is located in Lapeer County, has a natural lake for aquatic biology and is surrounded on three sides by Michigan Conservation property. The site is 241 acres in area. Presently, classes are held on the site in a converted schoolhouse. Facilities to house 64 on-site students and feed 200 are available.

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

Remaining on the main campus 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 lights 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.

RYNEARSON STADIUM

This new 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 new facility is a baseball field with a grandstand seating 2000 people under covered stands. The facility, first used in the spring of 1968, is the finest baseball facility in intercollegiate competition.

LABORATORY SCHOOL

HORACE H. RACKHAM SCHOOL OF SPECIAL EDUCATION

This building houses both a laboratory school for impaired children and the Department of Special Education. It contains a new speech and hearing clinic, a pool and other facilities for physical therapy. It was constructed in 1936.

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.
UNIVERSITY PRESS

The Eastern Michigan University Press, founded in 1967, has as its purpose the publication of scholarly books. The press is currently administered by a director and an editorial advisory board, comprised of deans and department heads ranked among the leading scholars on the University campus. It has been established as a governing board responsible, with the director, for establishing directions for the press and for maintaining quality of publications. The press' first title was published in 1968. The press will consider publication of works by members of the Eastern Michigan University faculty and by scholars from other institutions.

INFORMATION SERVICES

The Office of Information Services is responsible for the University news bureau, the publications office and sports information. This office offers professional assistance and counsel to individuals, organizations, faculty and administrators planning to conduct and promote activities of benefit to the University. The news bureau is the focal point for all contact with news media. Events and activities of the University are publicized through this office and inquiries from news media are generally directed to the news bureau. The news editor also is responsible for Faculty-Staff News.

All University publications are produced by the publications office, and production of all printed materials of the University are coordinated by the publications editor. The sports information director is responsible for all news and printed material relating to intercollegiate athletic activities.

SPARD

The Special Projects and Research Development Office was organized for the purpose of stimulating, initiating and developing special projects and research. The SPARD 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.

SPARD maintains an information resource center on funding agencies, serves as a liaison office for the funding agencies and assists in editing, reviewing and preparing proposals that are to be submitted to funding agencies.

THE ALUMNI ASSOCIATION

Eastern Michigan University was founded in 1849. Since then, thousands of students have graduated from its various academic programs. These students are now engaged not only in the teaching profession but also in many fields of endeavor.

The Alumni Association, incorporated in 1926, serves as a bond between the University and its former students. Membership is available to graduates, former students, and members of the faculty.

The Association has been active. This has been evidenced by its accomplishments and contributions to the University. 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, additional scholarships and aid to student organizations, have exemplified the willingness of alumni to invest in the University.

Meetings held throughout the year provide an opportunity for alumni in various cities and states to meet with representatives of the University and discuss mutual concerns. Each year, many alumni and friends return to the campus for Homecoming and the traditional Alumni Day held each spring.

The Board of Directors consists of twenty-three members who are appointed and chosen by a vote of the alumni at the annual meeting in May, two of whom are students selected and appointed by a student committee. The University president is an ex-officio member.

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.
EASTERN MICHIGAN UNIVERSITY
ALUMNI ASSOCIATION

OFFICERS

President .................... . Valerie Turner Moffett ('49)
First Vice-President ... .. .. .... .... Ronald E. Oestrike ('54)
Second Vice-President ............... Ronald Sesvold ('67)
Secretary ........................ .. Douglas G. Moss ('72)
Treasurer .. ............. . ..... . ......... Abe Karam ('62)
Directors Emeritus .................. Leslie A. Butler ('00)
                            Lloyd W. Olds ('16)

DIRECTORS

Beatty, C. Eugene ('34) .......... Term expires June, 1976
Bennetts, F. W. ('42) .......... Term expires June, 1975
Currie, Donald M. ('47) .......... Term expires June, 1977
Danovich, Patricia Brown ('61) .... Term expires June, 1976
Danzeisen, Milo L. ('52) .......... Term expires June, 1976
Duvall, Elven E. ('47) .......... Term expires June, 1976
Ebersole, Clare E. ('50) .......... Term expires June, 1976
Elliott, Carl E. ('59) .......... Term expires June, 1975
Goodman, Judith Mansfield ('62) .... Term expires June, 1976
Hamilton, Vanzetti M. ('49) ....... Term expires June, 1977
Jones, Judith Bates ('57) .......... Term expires June, 1977
Karam, Abe ('62) .......... Term expires June, 1976
Mays, William ('54) .......... Term expires June, 1977
Moffett, Valerie Turner ('49) ....... Term expires June, 1976
Oestrike, Ronald E.' ('54) .......... Term expires June, 1975
Ohst, Carolyn ('69) .......... Term expires June, 1975
Rynearson, E. James ('52) ....... Term expires June, 1977
Sesvold, Ronald ('67) .......... Term expires June, 1977
Shoemaker, Paul ('32) .......... Term expires June, 1977
Smiley, Robert K. ('48) .......... Term expires June, 1975
Studt, Earl K. ('32) .......... Term expires June, 1975
Weiss, Barbara Warner ('50) ........ Term expires June, 1975

*Appointive Members

OFFICE FOR ALUMNI RELATIONS
AND DEVELOPMENT

The Office for Alumni Relations and Development was established for the purpose of maintaining continued interest in the University and its programs by the alumni and acting as liaison for communication and service for the on-going progress of the University in its endeavor to provide education, which is its heritage.

At present, there are 50,000 alumni on file and the number is increased with each graduating class. These alumni receive seven publications each year, which include news of alumni and their activities, such as Homecoming, Alumni Day, special meetings and activities, and travel information. Also included in the publications is news of campus activities, programs on campus, and news about faculty, staff, and students.

The Development Office is the gift-receiving arm of the University and all contributions are acknowledged and processed through this office. This includes all monetary gifts, gifts-in-kind, wills and bequests. Appeals for funds are made four times each year to the alumni and the results are very gratifying.
FACULTY AND STAFF

A

Ph.D., University of Wisconsin

Abramson, Armand R. (1967), Associate Professor, Music.
M.M., Eastern School of Music

Adams, Georgia (1967), Nurse, Health Service.
R.N., Englewood Hospital, Chicago

Adams, John R. (1960), Professor, Health, Physical Education and Recreation.
Ph.D., University of Michigan

Adams, Leah D. (1969), Associate Professor, Curriculum and Instruction.
Ph.D., University of Michigan

Albritton, Thelma P. (1961), Assistant Professor, Special Education.
M.Ed., University of Oregon

Aldridge, Henry B. (1972), Assistant Professor, Speech and Drama.
Ph.D., University of Michigan

Allen, Irene A. (1968), Associate Professor, Curriculum and Instruction.
Ed.D., Ball State University

Allen, Thomas P. (1966), Assistant Professor, English Language and Literature.
Ph.D., Rice University

Anderson, Charles T. (1953), Professor, Chemistry.
Ph.D., Ohio State University

Anderson, Frederick M. (1970), Professor, History and Philosophy.
Ph.D., Harvard University

Anderson, I. Normajeann (1948), Associate Professor, Administrative Services and Business Education.
M.A., University of Michigan

Anderson, Marvin C. (1963), Associate Professor, Art.
M.F.A., Cranbrook Academy of Art

Anderson, Mary Virginia (1955), Academic Adviser.
M.S., Ohio State University

Anderson, Robert L. (1957), Professor, Psychology.
Ph.D., New York University

Anderson, Thomas C. (1972), Assistant Professor, Economics.
Ph.D., University of California

Andrew, Ann (1969), Instructor, 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

Angie, James B. (1964), Assistant Professor, English Language and Literature.
M.A., Kansas State University

Antiocchia, Sergio (1968), Assistant Professor, Operations Research and Information Systems.
M.B.A., Wayne State University

Ashton, Charles R. (1964), Assistant Professor, Marketing.
M.B.A., University of Michigan

Ashton, Dub (1974), Assistant Professor, Marketing.
Ph.D., University of Georgia

Avedon, Barry (1966), Associate Professor, Art.
M.F.A., Rochester Institute of Technology

Avner, Lillian L. (1969), Assistant Professor, Health, Physical Education and Recreation.
M.A., Texas Women's University

B

Badii, Larry L. (1965), Associate Professor, Mathematics.
Ph.D., Oregon State University

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Myers, Janet, Ph.B., A.M., Associate Professor Emeritus, Supervising Teacher, Home Economics.

N
North, Vera O., B.A., M.S., Associate Professor Emeritus, Supervising Teacher, Business Studies.

O
O'Connor, M. Ethel, B.S., A.M., Associate Professor Emeritus, Supervising Teacher, Elementary.
Olds, Lloyd W., A.B., M.S., Dr. P.H., Professor Emeritus, Head, Department of Health, Physical Education, Recreation and Athletics.
Owens, J. Henry, B.A., M.A., Ph.D., Professor Emeritus, Head, Foreign Languages and Literatures.

R
Risk, Norman W., B.S., M.A., Professor Emeritus, Industrial Education.
Robinson, Margaret, A.B., M.A., M.A.L.S., Associate Professor Emeritus, Library Science.
Rogers, Agnes L., B.A., M.A., Associate Professor Emeritus, Special Education and Occupational Therapy.
Rosen, Gertrude, B.S., A.M., Assistant Professor Emeritus, Principal, Rockham School of Special Education.

S
Sabourin, Johanna A., A.B., A.M., Associate Professor Emeritus, Foreign Languages.
Sattler, John W., B.A., M.A., Ph.D., Professor Emeritus, Head, Speech and Dramatic Arts.
Swete, Helen F., Associate Professor Emeritus, Art.

T
Tow, Sadie, A.B., A.M., Assistant Professor Emeritus, Supervising Teacher, Elementary.
Treado, Bernard M., B.A., M.A., Associate Professor Emeritus, Special Education.
Turner, Mabel E., A.M., Assistant Professor Emeritus, Supervising Teacher, Mathematics.

U

V
VandenBelt, Ben, A.B., A.M., Associate Professor Emeritus, Superintendent, Lincoln School.
Virtue, John B., B.A., M.A., Ph.D., Professor Emeritus, English Language and Literature.

W
Wallace, Merry Maude, B.S., M.A., Associate Professor Emeritus, Special Education.
Warren, Elizabeth, B.A., M.A., Ph.D., Professor Emeritus, History and Social Sciences.
Waugh, Edgar B., M.A., Professor Emeritus, History and Social Sciences.
Wilcox, William A., A.B., A.M., Associate Professor Emeritus, Physics and Astronomy.
Wilson, Lucile, B.S., M.Ed., Assistant Professor Emeritus, Supervising Teacher, Elementary Grades.
Wolfe, M. Doyne, A.B., M.A., Professor Emeritus, Foreign Languages.
Wright, Bessie, Assistant Registrar Emeritus.
Wright, Sara E., B.S., M.A., Professor Emeritus, Special Education and Occupational Therapy.

AFFILIATED LECTURERS

LECTURER IN BIOLOGY
Loesell, Russell W. .................................. Caribbean Biological Center

LECTURERS IN MEDICAL TECHNOLOGY
Brown, C. Arch (M.D.) .................................. Pathologist Washenaw Community College

LECTURERS IN MEDICAL TECHNOLOGY
Brown, C. Arch (M.D.) .................................. Pathologist St. Joseph Hospital
M.D., Baylor University College of Medicine
Ph.D., Johns Hopkins University
M.D., George Washington University

Dito, William R. (M.D.) .......................... Director of Laboratories Pontiac General Hospital
M.D., Loyola University
Dumoff, Morris ...................................... Microbiologist St. Joseph Hospital
Ph.D., University of Wisconsin
Eaton, Wayne (M.D.) ............................... Director of Laboratories St. Joseph Hospital
M.D., Wayne State University
Fly, Marie N. (M.D.) ............................... Pathologist Oakwood Hospital
Goldman, Robert T. (M.D.) ...................... Pathologist Wayne County General Hospital
M.D., University of Michigan
Greideringer, George H. (M.D.) ............... Pathologist St. Joseph Hospital
M.D., Johns Hopkins School of Medicine
Imperial, R. (M.D.) ................................ Director of Anatomical Pathology W.A. Foote Memorial Hospital
M.D., University of Santo Tomas, Manila P.I.
Knights, Edwin M., Jr. (M.D.) .................. Director of Laboratories Providence Hospital
M.D., Cornell University Medical College
Kopp, Clemens M. (M.D.) ......................... Director of Laboratories Port Huron Hospital
M.D., Ottawa University Medical School
Kallet, Henry A. (M.D.) .......................... Director of Clinical Laboratories W.A. Foote Memorial Hospital
M.D., Northwestern University
Langston, John D. (M.D.) ....................... Director of School of Medical Technology, Detroit Memorial Hospital
M.D., Jefferson Medical College
Libcke, John H. (M.D.) .......................... Assistant 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
Meadows, Theodore R. (M.D.) .................. Pathologist Wayne County General Hospital
M.D., University of Michigan
Meyer, Kenneth R. (M.D.) ....................... Associate Director of Laboratories, Oakwood Hospital
M.D., University of Pennsylvania
Mikat, Dorothy M. (M.D.) ........................ Associate Pathologist Pontiac General Hospital
M.D., Women's Medical College 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
Patrick, Catherine W. ............................ Teaching Supervisor Pontiac General Hospital
M.S., Wayne State University
Psik, Helen B. ..................................... Teaching Supervisor W.A. Foote Memorial Hospital
M.S., Michigan State University
Romanski, Raymond N. (M.D.) ................ Associate Director of Laboratories, Providence Hospital
M.D., University of Michigan
Schmidt, Robert W. (M.D.) .................... Pathologist Wayne County General Hospital
M.D., Ohio State University
Truani, Joseph P. ................................ Microbiologist Providence Hospital
Ph.D., University of Western Ontario
Wheeler, J.D. (M.D.) ............................. Pathologist McLaren General Hospital
M.D., Northwestern University
LECTURERS IN PSYCHOLOGY

- Norman, Ph.D., University of Kansas
  Consulting Psychologist
  Career Development Occupational Resources Center

- Fisher, Bonita, Ph.D., Michigan State University
  Staff Psychologist
  York Woods Center, Ypsilanti State Hospital

- Jackson, Newton, Ph.D., University of Portland
  Director of Psychology
  Center for Forensic Psychiatry

- Martier, Rudolf, Ph.D., Purdue University
  Highway Safety Research Institute, University of Michigan

- Petrock, Frank, M.A., Fairleigh Dickenson University
  Psychological Consultant
  Federal Correctional Institution

- Shapiro, David, Ph.D., University of Michigan

- Spann, Mary Lou, M.A., Michigan State University
  Staff Psychologist
  Ypsilanti State Hospital

- Splane, Barbara, M.A., Wayne State University
  Staff Psychologist
  Ypsilanti State Hospital

- Ring, Elisabeth, M.A., University of Minnesota
  Chief Psychologist
  Plymouth State Home and Training School

- Weaver, John, Ph.D., University of Michigan
  Chief Psychologist
  Federal Bureau of Prisons

- Siders, Bruce R., Superintendant
  Michigan School for the Deaf

LECTURER IN SPECIAL EDUCATION

- Siders, Bruce R., Ph.D., Michigan State University

Michigan School for the Deaf
STATISTICAL INFORMATION

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Deduct. counted twice ............................................. 1,298

Total number of students graduated ........................................ 4,751

Two-year Business Technician Certificates (Non-Teaching) .................. 11

Two-Year Industrial Arts Technician Certificates (Non-Teaching) .......... 3

Total Specialist Degrees .............................................. 64

Total Bachelor Degrees .............................................. 2,816

Total Prov. Teaching Certificates ..................................... 1,542

6,054

RECOMMENDATIONS FOR PERMANENT AND CONTINUING CERTIFICATES SUBMITTED TO THE STATE DEPARTMENT OF EDUCATION JULY 1, 1973 through JUNE 30, 1974

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TOTAL | 341 | 295 | 204 | 253 | 32 | 48 | 21 | 1194 |

VOCATIONAL CERTIFICATE RECOMMENDATIONS 1973-1974

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Totals: Business Edu. 207
Industrial Edu. 52
Home Economics 72

ENROLLMENT

Residence Enrollment: 1974-75
Spring Session 1974 8,900
Summer Session 1974 6,240

Regular Year:
Fall 18,574
Winter 17,425

Extension Enrollment:
Fall 1,468
Winter 1,775
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