

EASTERN MICHIGAN
UNIVERSITY
BULLETIN
1986

GRADUATE CATALOG
Ypsilanti, Michigan 48197

ACCREDITED BY

The North Central Association of Colleges and Secondary Schools
The National Council for Accreditation of Teacher Education
The American Assembly of Collegiate Schools of Business
National Association of Schools of Music
The American Speech and Hearing Association
The National League for Nursing

Statement of Mailing Privileges
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pirical aspects of international trade, and (e) the requisite skills to evaluate specific policy issues. The various segments are coordinated so that a logical progression in course work can be completed efficiently, and the inter-relationship between different segments can be fully appreciated by students. For additional information see page 61.

HISTORIC PRESERVATION

Public awareness of the precarious balance in which our natural and cultural heritage rests has grown resulting in pressure being brought to bear on those private and public organizations whose charge it is to manage and hence preserve our cultural resources. As historic preservation activities expand, so must historic preservation planning and consequently the need for trained personnel.

The graduate program in historic preservation planning, administration and heritage interpretation trains its participants to effectively take part in the planning process as it relates to historic preservation problems. In addition to traditional educational activities, the student will also have the opportunity to acquire experience through internships, cooperative education arrangements and work-study projects. For additional information see page 80.

INDUSTRIAL TECHNOLOGY

The Department of Industrial Technology recognizes the need for persons with advanced technical and supervisory skills. The graduate program in industrial technology is designed for technical managers, production supervisors and related types of industrial personnel who presently hold positions with firms and who are seeking to upgrade their skills for career advancement. The program is also designed to develop the generalist perspective needed by those individuals aspiring to mid-management positions, and for those desiring advance preparation in construction or manufacturing technology as it relates to the technical and human components of industry. For additional information see page 189.

LANGUAGE AND INTERNATIONAL TRADE

The Department of Foreign Languages and Bilingual Studies, in cooperation with the College of Business, offers a Master of Arts in language and international trade which integrates the study of modern foreign languages with preparation in the field of international business. The program is designed to promote cultural awareness and sensitivity with reference to our own society as well as to societies of other world regions and to provide students with the skills, knowledge and understanding needed for competent performance in an international environment.

A cooperative education exchange program with the Fachhochschule Nürtingen (Professional University at Nürtingen) near Stuttgart, West Germany, has been established. Similar programs have been recently developed with other institutions of higher education in France, Spain and Latin America. Under these agreements, qualified EMU students will work from four to 12 months in full-time, salaried cooperative educational positions in business firms while studying at the respective business schools abroad. These nationally unique exchange programs will give EMU students direct contact with another culture through daily living as well as through practical experience in a business organization and academic work at a European or Latin American business school. For additional information see page 73.

LIBERAL STUDIES

The Master of Liberal Studies degree program is a relatively new concept in graduate education. The primary purpose of the program is to offer a graduate degree program that is interdisciplinary in design and nonprofessional in orientation. The MLS student will find that this program fosters individual inquiry and offers a number of diverse opportunities for educational development.

The M.L.S. in social science and American culture draws upon courses in history, economics, music, sociology/anthropology, political science, geography, English language and literature, art, communication and theatre arts, teacher education, foreign

language and bilingual studies and interdisciplinary technology. The graduate program is designed for persons seeking employment in business, industry or government. See page 88.

The M.L.S. in technology focuses on the technical as well as socio-cultural and future dimensions. Individuals who engage in these studies in technology will obtain a broader knowledge and deeper insight into technological systems and the kind of impacts that these systems may have on society, individuals and the environment. For additional information see page 192.

The M.L.S. in women's studies is an interdisciplinary degree administered through the women's studies program. The primary purpose of the program is to promote an understanding of gender roles in contemporary society. The program fosters individual inquiry while providing a number of opportunities for academic development. See page 120.

PUBLIC ADMINISTRATION

The Master of Public Administration degree program offered by the Political Science Department provides graduate professional education for individuals currently pursuing public service careers as well as for those preparing to embark on such careers. It offers graduate training for both intermediate level administrators seeking professional advancement and students desiring entry level administrative positions.

The program enables students to concentrate in local government administration—particularly administration in sub-state regions—while at the same time acquiring training that is applicable in large cities and at the state and federal levels. The administrative focus of the program is also appropriate for those who work for governmental or non-profit organizations in fields related to health, education, social services, or law enforcement.

The local government aspect of the program provides preparation for careers as city managers; assistants to city managers; directors of personnel, finance, and human services departments; appointed city clerks; and administrative personnel in all departments.

The program is built around a core of courses in general public administration, personnel administration, budgeting, organization theory, quantitative/statistical analysis (including computer assisted analysis), and research methods. Among the many other courses offered are those in state and local government, intergovernmental relations, the legal aspects of local administration, public policy analysis, public finance, planning, land use and preservation law, and collective bargaining. For additional information see page 106.

DIRECTIONS FOR CORRESPONDENCE

Please address specific inquiries to the following offices:

DEAN OF THE COLLEGE OF ARTS AND SCIENCES

411 Pray-Harrod 487-4344

DEAN OF THE COLLEGE OF BUSINESS

508 Pray-Harrod 487-4140

DEAN OF THE COLLEGE OF EDUCATION

117 Boone 487-1414

DEAN OF THE COLLEGE OF HEALTH AND HUMAN SERVICES

220 King Hall 487-0077

DEAN OF THE COLLEGE OF TECHNOLOGY

145 Sill 487-0354

DEAN, GRADUATE SCHOOL

116 Pierce Hall 487-0042

DEAN, DIVISION OF CONTINUING EDUCATION

323 Goodison 487-0407

Off-campus and in-service courses; speakers for special occasions; adult education; consultation services to schools

DEAN OF STUDENTS

218 Goodison 487-3116

General welfare of individual students

DIRECTOR OF ACADEMIC RECORDS AND CERTIFICATION

5 Pierce Hall 487-4111

Certification requirements and transcripts

DIRECTOR OF ADMISSIONS

214 Pierce Hall 487-3060

DIRECTOR OF CAREER SERVICES CENTER

Fourth Floor, Goodison 487-0400

Teaching vacancies; registration of applicants for teaching, business and industrial positions; opportunities for earning a portion of University expenses

DIRECTOR OF FINANCIAL AID

203 Pierce Hall 487-0455

Loans and grants-in-aid; Graduate Assistantships funded by College Work-Study

DIRECTOR OF ON AND OFF-CAMPUS HOUSING

Basement, Dining Commons #1
487-1300

DIRECTOR OF REGISTRATION

Briggs Hall 487-2300

Registration of students for on/off campus classes

AFFIRMATIVE ACTION OFFICE

125 King Hall 487-0016

ALUMNI RELATIONS OFFICE

202 McKenny Union 487-0250

ATHLETICS OFFICE

200 Bowen Field House 487-0351

Athletic information and tickets

CAMPUS LIFE, OFFICE OF

221 Goodison 487-3045

Student Government, Residence Hall Association, University Judicial Board, Eastern Echo, Aurora

CENTER OF EDUCATIONAL RESOURCES

(Library) 487-0020

CHILD CARE CENTER

Snow Health Center, Ground Floor 487-1126

Child care for preschool children of students; summer and evening program through age 12

COUNSELING SERVICES

Snow Health Center
487-1118

GRADUATE SCHOOL OFFICE

116 Pierce Hall

Ronald E. Goldenberg, Dean
487-0042

George E. McCloud, Associate Dean
Nancy L. Halmhuber, (Interim) Assistant Dean 487-0048

Graduate Applications 487-3060
International Student Applications
487-3060

Graduate School 487-3400

Graduate Records 487-0093

Graduate Advising. See page sixteen for Coordinators of Advising listed by program area.

INTERNATIONAL STUDIES

330 Goodison 487-2424

MINORITY AFFAIRS, OFFICE OF

203-205 Goodison 487-3116

Information, counseling, tutoring, assistance with grievance procedures for minority students

PARKING CONTROL

Parking Structure 487-3450

PUBLIC SAFETY, DEPARTMENT OF

Parking Structure 487-1222

Police and fire

SNOW HEALTH CENTER

487-1122

Physician and nursing services; professional counseling, TB testing

STUDENT ACCOUNTING

Briggs Hall 487-3335

University fees and financial aids

UNIVERSITY BOOKSTORE

McKenny Union Basement 487-1000

Textbooks, educational materials, class rings

VETERANS AFFAIRS OFFICE

201-202 Goodison 487-3116

Veterans affairs and education benefits

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List of Catalog Abbreviations

The following is a list of abbreviations which appear in the Graduate Catalog:

ACC	Accounting	I	Incomplete	SPN	Spanish
AMU	Applied Music	IDT	Interdisciplinary Technology	SOC	Sociology
ANT	Anthropology	IE	Industrial Education	TESOL	Teaching English to Speakers of Other Languages
AST	Astronomy	IT	Industrial Technology	TOEFL	Test of English as a Foreign Language
ATGSB	Admission Test for Graduate Study in Business	KATS	Campus Antenna Television System	TV	Television
ATH	Athletic	KITS	Campus Instructional Television System	W	Withdrawal
BE	Business Education	LAW	Law	WMS	Women's Studies
BIL	Bilingual	MA	Master of Arts	ZOO	Zoology
BIO	Biology	MAT	Miller Analogies Test		
BOT	Botany	MBA	Master of Business Administration		
CAD/	Computer Aided Design/	MBE	Master of Business Education		
CAM	Computer Aided Manufacturing	MFA	Master of Fine Arts		
CASCI	Certificate of Advanced Studies in Curriculum and Instruction	MGT	Management		
CEN	Courses in English	MIC	Microbiology		
CHM	Chemistry	MKT	Marketing		
CLEP	College Level Examination Program	MLS	Master of Liberal Studies		
CSC	Computer Science	MPA	Master of Public Administration		
CTA	Communication/Theatre Arts	MS	Master of Science		
CUR	Curriculum	MSA	Master of Science in Accounting		
CWS	College Work Study	MSIS	Master of Science in Computer-Based Information Systems		
DAN	Dance	MSOD	Master of Science in Organizational Behavior and Development		
ECO	Economics	MTH	Mathematics		
EDL	Educational Leadership	MUS	Music		
EDM	Educational Media	NDSL	National Direct Student Loan		
EDP	Educational Psychology	ORD	Office of Research Development		
EDT	Educational Technology	ORI	Operations Research and Information Systems		
EFL	English as a Foreign Language	PED	Physical Education		
EMU	Eastern Michigan University	PHI	Philosophy		
ENG	English	PHY	Physics		
ESL	English as a Second Language	PLS	Political Science		
FA	Fine Art	Prereq	Prerequisite		
FCSP	Family and Children's Services Program	PSY	Psychology		
FIN	Finance	RDG	Reading		
FLA	Foreign Language	REC	Recreation		
FRN	French	SEI	Special Education-Emotionally Impaired		
G&C	Guidance and Counseling	Sem	Semester		
GEO	Geography	SFD	Social Foundations		
GES	Geography of Earth Science	SGN	Special Education-General Courses		
GHP	Historic Preservation	SHI	Special Education-Hearing Impaired		
GLG	Geology	SLD	Special Education-Learning Disabilities		
GMAT	Graduate Management Admission Test	SLI	Special Education-Speech & Language Impaired		
GNP	Gross National Product	SMI	Special Education-Mentally Impaired		
GPA	Grade Point Average	SPA	Specialist in Arts		
GRE	Graduate Record Examination	SPI	Special Education-Physically and Otherwise Health Impaired		
HEC	Home Economics				
HED	Health Education				
HIS	History				
HPER&D	Health, Physical Education, Recreation and Dance				

EASTERN MICHIGAN UNIVERSITY

Ypsilanti, Michigan
48197

THE INSTRUCTIONAL YEAR

The instructional year is divided into two semesters of 15 weeks each, a spring session of seven and one-half weeks and a summer session which offers both six week and seven and one-half week courses. In addition, workshops of one to three weeks duration are offered. Students who have satisfied admission requirements may enroll at the beginning of any semester or session.

GRADUATE SCHOOL CALENDAR

Winter Semester, 1986

Classes begin.....January 6
Winter recess.....February 23-March 2
Easter recess.....March 28-30
Commencement.....April 19
Winter semester closes.....April 26

Spring Session, 1986

Classes begin.....May 5
Memorial Day (no classes).....May 26
Spring session closes.....June 25
Graduation date.....June 25
(no commencement exercises)

Summer Session, 1986

Classes begin.....June 30
Independence Day recess.....July 4
Six week session closes.....August 8
Summer session closes.....August 22
Graduation date.....August 22
(no commencement exercises)

Fall Semester, 1986

Classes begin.....September 3
Thanksgiving recess.....November 27-30
(no classes after 5:00 p.m. 11-27)
Commencement.....December 14
Fall semester closes.....December 20

Winter Semester, 1987

Classes begin.....January 5
Winter recess.....February 22-March 1
Easter recess.....April 17-19
Commencement.....April 18
Winter semester closes.....April 25

Spring Session, 1987

Classes begin.....May 4
Memorial Day (no classes).....May 25
Spring session closes.....June 24
Graduation date.....April 24
(no commencement exercises)

Summer Session, 1987

Classes begin.....June 29
Independence Day recess.....July 3
Six week session closes.....August 7
Summer session closes.....August 21
Graduation date.....August 21
(no commencement exercises)

ACCREDITATION

Eastern Michigan University is accredited by the North Central Association of Colleges and Secondary Schools, the National Council for Accreditation of Teacher Education, the American Assembly of Collegiate Schools of Business, National Association of Schools of Music, the American Speech and Hearing Association and the National League for Nursing. The specialist's degree is the highest degree approved.

GOVERNMENT OF THE UNIVERSITY

The 1963 constitution of the state of Michigan places Eastern Michigan University under a separate board 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 monies paid by the people of Michigan and student tuition and fees.

BOARD OF REGENTS

William Simmons, Chairperson... Wayne
Geneva Y. Titsworth,
Vice Chairperson.... Dearborn Heights
John Burton..... Ypsilanti
Anthony A. Dereziński..... Ann Arbor
Geraldine M. Ellington..... Detroit
Thomas Guastello..... Mt. Clemens
Beth Wharton Milford..... Ypsilanti
Richard N. Robb..... Ypsilanti

EXECUTIVE OFFICERS

John W. Porter..... President
Ronald W. Collins..... Provost and Vice
President for Academic Affairs
Robert J. Romkema..... Vice President
for Business and Finance
Laurence N. Smith..... Vice President
for University Marketing
and Student Affairs
Roy E. Wilbanks..... Vice President
for University Relations
George Johnston..... Chief Budget
Officer
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of University Computing
Richard M. Stone (Acting)..... Executive
Director of Human Resources
Dorian Sprandel..... Executive Director
of Auxiliary Services
John C. Fountain..... Executive Director
of Publicity and Promotions

ADMINISTRATIVE OFFICERS

Joan Connell..... Associate Provost:
Budget, Personnel and Operations
Donald Bennion..... Associate Vice
President: Program Development
and Review
Ronald E. Goldenberg..... Dean,
Graduate School
Donald F. Drummond..... Dean, College
of Arts and Sciences
Joe Kent Kerby..... Dean, College of
Business
Patricia B. Weber..... Associate Dean,
College of Business
W. Scott Westerman, Jr.... Dean, College
of Education
Mary A. Green..... Associate Dean,
College of Education
Elizabeth C. King..... Dean, College of
Health and Human Services
Alvin E. Rudisill..... Dean, College of
Technology
Pending..... Associate Dean,
College of Technology
Paul McKelvey..... Dean, Division of
Continuing Education
Bette White..... Dean of Students

DEPARTMENT HEADS

College of Arts and Sciences

Art.....John E. Van Haren
Biology.....Herbert H. Caswell, Jr.
Chemistry.....O. Bertrand Ramsay
Communication and
Theatre Arts.....Dennis M. Beagen
Computer Science
.....(Acting) Andrew C. Dempster
Economics.....Young-lob Chung
English Language and
Literature.....Judith A. Johnson
Foreign Languages and Bilingual
Studies.....Jean S. Bidwell
Geography and
Geology.....Elwood J.C. Kureth
History and
Philosophy.....Ira M. Wheatley
Mathematics.....Donald R. Lick
Music.....James B. Hause
Physics and
Astronomy.....Elwood J.C. Kureth
Political Science.....James D. Johnson
Psychology.....Barry A. Fish
Sociology.....(Acting) Edward Green

College of Business

Accounting and
Finance.....Keith W. Lantz
Management.....Floyd A. Patrick
Marketing.....Robert J. Williams
Operations Research and Information
Systems.....V.M. Rao Tummala

College of Education

Health, Physical Education, Recreation
and Dance.....Patric L. Cavanaugh
Leadership and
Counseling.....Jack D. Minzey
Special Education.....Norman Niesen
Teacher Education.....Marvin Pasch

College of Health and Human Services

Human, Environmental
and Consumer Resources
.....(Acting) Marilyn Pogue Nagy

College of Technology

Business and Industrial
Education.....H. James Rokusek
Industrial
Technology (Acting) Thomas G. Soyster
Interdisciplinary
Technology.....Paul Kuwik

THE UNIVERSITY

Eastern Michigan University was founded by the State Legislature in 1849. While originally established to train teachers, its major purpose was always broadly interpreted and gave special emphasis to instruction in the liberal arts, the sciences and other areas vital to the background of well-qualified educators.

The University's emphasis on the liberal arts, social and natural sciences, business and applied science was formally recognized by legislative action in 1959 when Eastern was designated to be a multi-purpose university. Accredited undergraduate and graduate degree programs are offered by the College of Arts and Sciences, the College of Business, the College of Education, the College of Health and Human Services, and by the College of Technology.

Graduate education was inaugurated in 1938 when programs were conducted in cooperation with the University of Michigan. In 1953 Eastern gained approval to offer its own graduate programs.

Eastern Michigan University continues to establish new graduate programs in order to meet the developing needs of students and society. Currently the Graduate School offers more than 50 graduate programs leading to a master's degree. The University has also been cognizant of its educational responsibilities beyond the master's degree. Specialist in Arts degree programs have been established in a number of areas to provide advanced graduate study for persons seeking professional careers in educational institutions.

Eastern Michigan University is located in Ypsilanti, near the Detroit metropolitan area which places it in one of the world's great industrial centers.

Detroit Metropolitan Airport is 15 miles from campus. Major east-west and north-south expressways provide easy access to the University from any point within Michigan and the Midwest.

Students wishing to extend their social, cultural and recreational experiences beyond the campus will find extensive opportunities for doing so in Detroit—a 45 minute drive from campus. The resources of The University of

Michigan at Ann Arbor are only eight miles away. Scenic lakes are also within easy driving distance.

The University provides all of the resources of a growing multi-purpose university. Faculty, staff, physical plant and related facilities are available to accommodate an enrollment of approximately 20,000 students. A highly professional faculty provides excellent classroom instruction. On-campus housing for almost 5,200 persons is provided in residence halls and both single and married student apartments.

The central campus of the University is located adjacent to the Huron River. The west campus, a tract of 182 acres, provides modern facilities for athletics and physical education, physical plant and other service functions and fine living accommodations for student families.

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.”

STATEMENT OF EQUAL OPPORTUNITY AND AFFIRMATIVE ACTION POLICIES

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

TITLE IX OF THE EDUCATION AMENDMENTS OF 1972

It is the policy of Eastern Michigan University to comply with Title IX of the Education Amendments of 1972 and its Regulation, which prohibit discrimination on the basis of sex. Anyone who believes that in some respect Eastern Michigan University is not in compliance with Title IX and its regulations should contact the Executive Director of Human Resources at (313) 487-1052, 311 King Hall.

REHABILITATION ACT OF 1973

In its programs, activities and employment, Eastern Michigan University does not discriminate on the basis of handicap. Anyone who believes that in some respect Eastern Michigan University is not in compliance with the

Rehabilitation Act and its regulations should contact the Executive Director of Human Resources at (313) 487-1052, 311 King Hall. Handicapped individuals who are otherwise qualified for admission are invited to apply.

FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT

In compliance with the Family Educational Rights and Privacy Act, Eastern Michigan University assures that any person who is or has been in attendance as a student at EMU has access to his/her educational records. Furthermore, such individual's right to privacy is assured by limiting the transferability of records without the student's consent.

The following are matters of public record and may be included in publications or disclosed upon request without consent: the student's name, address,

telephone listing, date and place of birth, major field of study, participation in recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student.

Registration documents or student organizations which contain the names and addresses of the officers and the statement of purpose of the organization are also considered public information. These documents are available in the Campus Life Office, 221 Goodison Hall.

EMU reserves the right to make directory information public unless a student's written objection (specifying the category of information not to be made public without prior consent) is filed at the Office of the Dean of Students within fourteen (14) days after each term begins.

GRADUATE SCHOOL POLICIES AND INFORMATION ORGANIZATIONS

The Graduate School administers all graduate education at Eastern Michigan University. The dean serves as the chief executive officer and is charged with providing leadership for development of graduate education, the responsibility for adherence to educational policies and standards and for the effective operation of the Graduate School.

The Graduate School reserves the right to make modifications or changes in the curriculum pattern, admission standards, course content, degree requirements, tuition or fees at any time without advance notice. The information contained in this catalog is not to be considered as a binding contract between the Graduate School and the student.

The Graduate Council, with a membership of 25 persons, serves as a policy recommending body and engages in planning for the orderly development of graduate education. It consists largely of faculty, both elected and appointed, and four graduate students. A current roster may be obtained from the Graduate Dean's Office.

OBJECTIVES

The Graduate School at Eastern Michigan University desires to encourage graduate education that establishes or upgrades professional competence by providing programs designed to train students for careers in areas such as teaching, school administration, counseling, business, etc.; that prepares individuals for more advanced academic work, particularly in the academic disciplines; that provides students the knowledge of research techniques and the opportunity for practicing research pertinent to their specific disciplines; and that serves the unique needs of students by providing post-baccalaureate educational opportunities for individuals and groups at convenient geographic locations and in special or individualized modes.

Faculties within all colleges and

departments continually strive to meet the educational needs of graduate students. A variety of programs has been authorized and accredited, and others are in the process of development. Although formal graduate study programs have been established in many academic areas, there is sufficient flexibility in each program to enhance the professional goal of each individual student.

PROGRAMS

The University offers graduate work leading to several types of academic degrees, including the Master of Arts, Master of Science, Master of Business Administration, Master of Public Administration, Master of Business Education, Master of Fine Arts, Master of Individualized Studies, Master of Liberal Studies and Specialist in Arts. Programs leading to these degrees are administered by the departments in the respective colleges. Departments which offer more than one option within their degree programs are identified.

MASTER'S DEGREE

College of Arts and Sciences

- Applied Economics
- Art
 - Education
 - Studio
- Behavioral Services
- Biology
 - General Biology
 - Ecosystem (Aquatic and Terrestrial)
 - Community College Teaching
 - Physiology
- Chemistry
- Communication
 - Oral Interpretation
 - Public Address
- Criminology and Criminal Justice
- Development, Trade and Planning
- Drama/Theatre for the Young (MA, MFA)
- Economics
- English
 - Literature
 - Written Communication
 - Children's Literature
 - English Linguistics
- Fine Arts (MFA)
- General Science
- Geography
 - Environmental Studies
 - Land Use Analysis
 - Man & His Works
 - Physical Geography

- Historic Preservation
 - General
 - Planning
 - Administration
 - Heritage Interpretation
- History
- Language and International Trade
- Liberal Studies
 - Social Studies and American Culture
 - Women's Studies
- Mathematics
- Music
 - Music Education
 - Music Literature
 - Music Theory-Literature
 - Piano Pedagogy
 - Performance
 - Choral Music
- Physics
 - Phsyics Education
- Psychology
 - General
 - Clinical
- Public Administration
- Social Science
- Sociology
 - Family Specialty
- Spanish (Bilingual-Bicultural Education)
- TESOL (Teaching English to Speakers of Other Languages)
- Theatre Arts
 - Arts Management
 - Drama/Theatre for the Young

College of Business

- Accounting
- Business Administration
 - Accounting Information Systems
 - Finance
 - Computer-Based Information Systems
 - Operations Research
 - Decision Sciences
 - Management
 - Organization Development
 - Marketing
 - International Business
 - General Business
- Computer-Based Information Systems
- Computer Systems
- Management Science
- Organizational Behavior and Development

College of Education

- Early Childhood Education
- Educational Leadership
- Educational Psychology
 - Development and Personality
 - Research and Measurement

- Educational Technology
- Elementary Education
- Guidance and Counseling
 - School Counselor Endorsement
 - College and Community Personnel
- K-12 Curriculum
- Middle School Education
- Physical Education
- Reading
- Secondary School Teaching
- Social Foundations
- Special Education
 - Mentally Impaired
 - Orthopedically Impaired
 - Hearing Impaired
 - Emotionally Impaired
 - Visually Impaired
 - Speech and Language Impaired
 - Learning Impaired

College of Health and Human Services

- Home Economics
 - General Home Economics
 - Clothing and Textiles
 - Family and Child Development
 - Foods and Nutrition
 - Consumer Affairs
 - Housing and Interior Design

College of Technology

- Business Education
- Industrial Education
 - Industrial Arts
 - Industrial-Vocational
- Industrial Technology
 - CAD/CAM Technology
 - Construction
 - Manufacturing
- Liberal Studies
- Technology

Individualized Studies

Certificate of Advanced Studies in Curriculum and Instruction (CASCI)

Specialist's Degree

- Educational Leadership
- Guidance and Counseling
- School Psychology
- Special Education
 - Administration and Supervision
 - Curriculum Development

Master's Degree Program in Liberal Studies

The Master of Liberal Studies (MLS) degree program is a relatively new concept in graduate education. This innovative concept provides for an individualized approach to graduate study. It allows students the opportunity to help design a program of study which effectively combines two or more complementary academic disciplines and culminates this academic experience by providing relevant experiential training. This approach to graduate education provides an opportunity for students to tailor a program of study which will best meet their personal, academic and career interests.

The Master of Liberal Studies degree program has been flexibly designed to allow for the development of a cluster of options, each following the same basic pattern. These options center on interdisciplinary themes in technology and in the humanities, the natural sciences, the social sciences, the arts, women's studies and human values. Each specific option will establish a primary concentration and identify two or more complementary concentrations which will give the student a wide selection of courses in various academic disciplines. Each option will also include the opportunity for a culminating experience. In order to fulfill the basic program requirements for each option the student does the following:

(one primary concentration)

1. identifies a primary concentration within the option and selects 12 semester hours from the courses listed;

(two complementary concentrations)

2. identifies at least two complementary concentrations and selects from the courses listed in each a total of 12 semester hours;

(electives)

3. electives may be taken from the pool of approved courses or the student may petition the steering committee for the concentration to take electives from outside the pool. Zero to six hours of electives.

(a culminating experience)

4. identifies a seminar, independent

study, internship or practicum as a culminating experience (development of a paper, project, essay, study abroad or further readings) for zero to six semester hours. Three of the six hours may be electives.

Three specific areas of concentration are available; namely social science and American culture; women's studies; and technology (see page 88, 120 and 192, respectively).

Master's Degree Program in Individualized Studies

The master's degree program in individualized studies is designed to serve the needs and interests of students whose occupational, vocational or educational goals are not met by other graduate degree programs offered at Eastern Michigan University. This program is structured so as to assure a quality graduate level experience, while making provision for flexibility and innovation in graduate study.

Each applicant is expected to develop a set of specific goals and objectives for the proposed program of study with the assistance of two faculty members. The applicant and advisers develop a structured sequence of courses that has academic integrity and which meets the goals and objectives of the program. The resulting proposal and program of study are submitted to a Supervising Committee composed of members of the graduate faculty for review and recommendation. Applicants interested in this program must apply at least six months prior to the enrollment period in which they wish to begin their studies.

For additional information regarding the master's degree program in individualized studies, please contact the Graduate School Office, 116 Pierce Hall.

The Certificate of Advanced Studies in Curriculum and Instruction (CASCI)

The Certificate of Advanced Studies in Curriculum and Instruction (CASCI), a 30 hour post-master's program, offers an opportunity for post-master's teachers to select study experiences which are specifically related to their current professional needs. There are no pre-determined course requirements. Advisers approve program choices

which teachers make in accordance with their individual desires for professional growth.

CASCI is offered in response to the need for relevant, flexible, individualized programs which will enable career teachers to keep abreast of new developments and to respond to the professional challenges in their classrooms and in their school districts.

A teaching certificate, a master's degree from an accredited university and a minimum of one year's teaching experience are prerequisites to acceptance in the program.

Michigan Intercollegiate Graduate Studies Program

The Michigan Council of Graduate Deans offers a guest scholar program (M.I.G.S.) which enables graduate students of Michigan public institutions offering graduate degree programs to take advantage of unique educational opportunities such as special courses, workshops, field experience and similar experiences. The M.I.G.S. program is available at the following member institutions: Andrews University, Central Michigan University, Eastern Michigan University, Grand Valley State Colleges, Michigan State University, Michigan Technological University, Northern Michigan University, Oakland University, Siena Heights College, University of Detroit, University of Michigan, Wayne State University and Western Michigan University.

Students interested in additional information should contact the Graduate School Office, 116 Pierce Hall.

ADMISSION

It should be understood that the admission policies presented are minimum standards and that many departments have established criteria above these minimums. For this reason, applicants for degree admission may have to meet additional requirements established by departments. These requirements often include admission tests, valid teaching certificates, letters of recommendation and/or personal interviews and grade point averages above the minimum established by the Graduate School.

Anyone planning to enroll in graduate level courses must be admitted to the Graduate School through one of

the following two admission categories: Degree admission or Special Student status.

REQUIREMENTS

Master's Degree

Degree admission requires that the applicant hold a bachelor's degree from an accredited college or university and possess a minimum undergraduate grade point average of 2.50 or 2.75 in the last half of the undergraduate program. Applicants who do not meet these criteria may be considered for admission into some programs in accordance with a procedure called *alternative admission* which requires the completion of either 10 or 12 hours of selected graduate work at EMU and the achievement of a grade point average of 3.3 ("B +"). At least six of the hours must be taken in the department in which the admission is sought and must be approved by the departmental coordinator of advising. Applicants who do not possess a 2.50 minimum and wish to pursue degree admission through this alternate route should contact the Graduate School Office. The Graduate School will provide application forms for this purpose as well as a list of those departments having *alternative admission*.

Specialist's Degree

A minimum grade point average of 3.3 ("B +") in the master's degree program is required for admission to the specialist's degree. For those departments admitting students into the specialist's degree directly from the bachelor's degree, a minimum undergraduate grade point average of 2.75 is required. Departments may establish standards higher than this minimum.

Special Student

Special Students may enroll under this status for any of the semesters or sessions (fall, winter, spring or summer) and there is no limit to the number of hours a Special Student may earn. However, students will be subject to course prerequisites. Also, a student can not earn a degree with Special Student status. Students can transfer from Special Student status to degree status if they meet departmental and Graduate School requirements (see Transfer of Credit to Degree Programs from Special Student, page 20). Policy states that a

student must complete a minimum of 10 semester hours after admission to the degree program. Special Students can earn a graduate certificate in such programs as historic preservation planning and social work. However, for the purpose of teacher certification and for professional licensing, the submission of official transcripts is necessary.

Credits earned do not automatically apply toward a degree program but are dependent upon admission to the Graduate School, the requirements of the program, recommendation by an adviser and the approval of the Graduate School.

Teacher Certification

Students interested in taking graduate courses for the purpose of teacher certification may do so as Special Students (described below).

Guest Students

Students who wish to earn graduate credit at Eastern for transfer to the parent institution may do so as Special Students (described below).

Second Bachelor's

Students who wish to earn a second bachelor's degree may do so as Special Students.

PROCEDURES FOR GRADUATE ADMISSION

Degree Status

Complete and submit the application form to the Graduate School Office.

Submit official transcripts of all undergraduate and graduate credit at each institution attended.

Where necessary, have official scores from national examinations submitted. (Departments requiring test scores state this in the Graduate Catalog.)

All application materials should be received by the Graduate School 30 days prior to the beginning of the semester or session in which enrollment is anticipated. All documents and supporting data required for admittance become the property of the Graduate School and will not be returned to the applicant.

Applicants are not officially admitted to a graduate academic program until

they have been notified of acceptance by the dean of the Graduate School in writing.

Special Student Status

Provided that they present proof of a baccalaureate degree students may enroll for as many enrollment periods as they wish with Special Student status.

International Students

The Graduate School considers an applicant an international student if either or both of the following are true:

applicant received baccalaureate degree from an institution outside the United States;

applicant currently holds or will hold F-1 (student) or J-1 (exchange visitor) visa status.

For admission, international students must:

meet the minimum academic requirements for admission to the Graduate School (e.g., a bachelor's degree or its equivalent from an accredited institution);

submit evidence of proficiency in the English language;

present a statement of financial responsibility;

provide two letters of recommendation from administrators or professors in the college or university from which the applicant holds a bachelor's degree; and

submit official scores in a standardized test (GRE, GMAT, MAT) if required for admission to the select degree program.

The Graduate School requires that all International Students applying for admission and residing in this country or abroad demonstrate proficiency in the use of the English language. This may be done one of two ways:

1. Taking the Test of English as a Foreign Language (TOEFL); inter-

pretation of scores for TOEFL:

299 and below—requires the student to take the English as a Second Language program

300-399*—requires the student to take 24 hours of elementary English (no additional academic courses permitted)

400 to 449*—requires the student to take 12 hours of elementary English (no additional academic courses permitted)

450 to 499—requires the student to take six hours of intermediate English (one additional academic course may be taken)

500 and above—no additional English is required, but review courses are available for those in need of additional practice

2. Taking the Michigan Test at the English Language Institute, University of Michigan, Ann Arbor, Michigan; interpretation of scores for Michigan Test:

49 and below—requires the student to take the English as a Second Language program

50-59*—requires the student to take 24 hours of elementary English (no additional academic courses permitted)

60 to 74*—requires the student to take 12 hours of elementary English (no additional academic courses permitted)

75 to 79—requires the student to take six hours of intermediate English (one additional academic course may be taken)

80 or above—no additional English is required, but review courses are available for those in need of additional practice

*Students required to enroll for 12/24 hours of English will be required to take six hours of intermediate English to complete the sequence.

In all cases, placement in courses will be determined by the Department of Foreign Language and Bilingual Studies.

For information on these two tests, write or telephone:

*Test of English as a Foreign Language Education Testing Service
Princeton, New Jersey 08540
Telephone 1-609-921-9000*

*English Language Institute
University of Michigan
Ann Arbor, Michigan 48109
Telephone: 1-313-764-2416*

The scores received on the TOEFL or the Michigan Test must be submitted to the Graduate School Office before consideration can be given to the student's application.

English as a Second Language (ESL)

Eastern Michigan University offers four levels of ESL: beginning, intermediate, advanced and academic support. Beginning level courses are offered only during fall term. Intermediate level courses are offered during the fall and winter terms. (Intermediate and beginning courses are offered during other terms if needed to accommodate a special project.) Courses at the two highest levels (advanced and academic support) are offered every term.

Fall Term

Beginning ESL 110, 112, 114, 116
Intermediate ESL 210, 212, 214, 216
Advanced ESL 310, 312, 314, 316
Academic Support ESL 412, 414, 416

Winter Term

Beginning
Intermediate ESL 210, 212, 214, 216
Advanced ESL 310, 312, 314, 316
Academic Support ESL 412, 414, 416

Spring/Summer Term

Beginning
Intermediate
Advanced ESL 310, 312, 314, 316
Academic Support ESL 412, 416

The following is a brief description of the ESL courses:

Grammar

ESL 110 Beginning grammar covers the basic components of the simple sentences.

ESL 210 Intermediate grammar continues to teach the basic components of the simple sentence.

ESL 310 Advanced grammar presents the formation and usage of clauses, the sequence of verb tenses in complex sentences and the more refined uses of English grammar.

Writing

ESL 112 Beginning writing practices grammar manipulation of simple sentences while introducing types of paragraph organization and correct paragraph form.

ESL 212 Intermediate writing focuses on paragraph construction while teaching unity, cohesion and transition.

ESL 312 Advanced writing teaches rhetorical patterns in composition length papers.

ESL 412 Academic support writing continues practice with rhetorical patterns in compositions and guides students through the process of researching, outlining and writing an original research paper.

Reading

ESL 114 Beginning reading develops basic vocabulary, the concept of main idea and supporting detail. Students read written conversation and story paragraphs in simplified English.

ESL 214 Intermediate reading moves from personal narratives to informational reading in simplified English. Vocabulary developing techniques and reading skills are taught.

ESL 314 Advanced reading continues to provide practice in reading and analyzing unsimplified passages of greater length and linguistic complexity.

ESL 414 Academic support reading promotes reading in specialized fields at professional levels and provides practice in outlining, summarizing and synthesizing ideas from different sources.

Speaking/Listening

ESL 116 Beginning speaking/listening promotes production and comprehension of factual pieces of information.

ESL 216 Intermediate speaking/listening provides practice in sustained interchange of social conversation and in discreet point listening.

ESL 316 Advanced speaking/listening continues to develop conversational skills and prepares students to present short monologues and comprehend short lectures. Must be taken concurrently with ESL 118.

ESL 416 Academic support speaking/listening focuses on academic oral/aural skills: lecture comprehension, note-taking, essay exam preparation and group speaking strategies.

All levels of this skill area have accompanying lab work and/or classes.

English for Special Purposes

The Department of Foreign Languages and Bilingual Studies also offers three courses for non-native speakers preparing to enter the specialized fields of business, education, and technology. These courses develop language skills necessary for professional settings.

GRADUATION REQUIREMENTS

Before receiving a diploma, certain requirements must be fulfilled and it is the *student's responsibility to see that all are met.*

GRADUATION FEE

A non-refundable graduation fee is to be paid when a student makes application for graduation. See Graduation Fee, page

APPLICATION FOR GRADUATION

Candidates for graduation must submit to the Graduate School Office a Diploma Application at the time of registration for the semester or session in which they plan to complete requirements for a graduate degree.

Fall registration for December graduation

Winter registration for April graduation

Spring registration for June graduation

Summer registration for August and

October graduation

Diploma applications may be obtained in the Graduate School Office. The completed application, together with the application fee, should be turned in at the Cashier's Office, Briggs Hall.

FAILURE TO APPLY FOR GRADUATION WILL RESULT IN A DELAY IN RECEIVING THE DEGREE.

A candidate for graduation who enrolls at another college or university for credit to be transferred to Eastern Michigan University and applied toward meeting degree requirements must submit an official transcript of such credit not later than one month prior to the closing date of the semester in which the degree is to be awarded. Delay of at least one enrollment period in granting the degree will result if transfer credit has not been received by that time. Grade reports and/or letters from instructors will not be accepted in lieu of official transcripts.

Students completing their degree work at the close of the summer session should expect to receive their DEGREE VERIFICATION letter two or three weeks after the close of the session. SPECIAL REQUESTS FOR ADVANCE VERIFICATION CANNOT BE HONORED. The student's degree recommendation letter documents the University's degree verification process and can be used to inform any employer of the date when the student's degree verification can be expected.

GRADE POINT AVERAGE REQUIREMENTS FOR GRADUATION

No student will be recommended and approved to receive a master's degree unless the student has achieved a grade point of 3.0 ("B" grade.) Some specialist's degree programs require a 3.3 or "B + " average for graduation. See Grading System, page 19.

The grade point average requirement for graduation applies to:

all graduate credit earned at Eastern Michigan University

all graduate credit included in the area of specialization

Only grades received in courses taken for graduate credit at Eastern Michigan University are used in computing a student's grade point average. Grades received in courses accepted as transfer credits are *not* included in the grade point average.

With the revised grade point scale that was instituted in fall 1979, some students graduating in the near future will have grade points on the permanent record and averages consisting of a mix of the old "A" = 8.0 and the new "A" = 4.0 systems. Questions with respect to calculation and interpretation should be directed to the records supervisor in the Graduate School Office, 116 Pierce Hall.

CREDIT REQUIREMENTS

The minimum credit requirement for a master's degree is 30 hours, while 32 hours beyond the master's is required for a specialist's degree.

Some programs have credit requirements in excess of these Graduate School minimums.

A program of study must be on file in the Graduate School Office before a student can graduate.

COGNATE REQUIREMENT

Cognates are defined as those supportive and complementary courses which are related to the area of concentration and are outside the department and/or college in which the degree is to be earned. Each program of study should include cognates. The number of hours associated with the component (usually six) is determined by each department.

For the cognate requirement associated with the specific degree program(s) of interest, see program description and graduation requirement.

COURSE LIMITATIONS

For a master's degree, no more than six hours of graduate credit in the following courses may be used to satisfy requirements of the degree program:

Special Topics - course numbers 590, 591, 592, 679, 680, 681

Independent Study - course numbers 697, 698, 699

Seminar - course numbers 693, 694, 695, 696

Workshop - course numbers 594, 595, 596, 597, 682, 683, 684, 685

Thesis/Final Project - course numbers 690, 691, 692, 790, 791, 792

RESIDENCY REQUIREMENT

For a master's degree, at least six hours of graduate credit used on a degree program must be earned on campus at Ypsilanti. This requirement may also be met by enrollment in travel-study tours sponsored by Eastern Michigan University and at the facilities at the Kresge Environmental Center.

For the specialist's degree, at least 16 hours of credit must be earned on the campus at Ypsilanti. It is also expected that one semester or two summer sessions will be spent in full-time work on the campus.

TIME LIMITATIONS

All requirements for a master's degree are expected to be completed within six years from the time of first enrollment. All requirements for a specialist's degree are expected to be completed within six calendar years if a master's degree is held at time of first enrollment, and within eight calendar years if a bachelor's degree is held at time of first enrollment. Graduate credit earned more than six/eight years respectively prior to the date on which the degree is to be granted, may not as a rule, be applied to meeting graduation requirements without validation. It is possible to validate out-of-date credit that is to be applied to a degree by the process of examination, depending upon the requirements of the program, the recommendations of the adviser, and the approval of the Graduate School Office.

Students admitted prior to September 1, 1971, have the option of applying four hours of out-of-date course work to a degree program without validation, subject to the approval of the adviser. If they wish to use more than four hours of out-of-date credit, all out-of-date credit must be validated.

GENERAL REGULATIONS

Once degree admission to the Graduate School has been granted, but prior to graduation, various policies and procedures regulate the pathway to the degree.

ADVISING

In an effort to provide guidance for all students who are granted admission to a graduate degree program, a system of advising has been established. Upon notification of admission to a degree program by the Graduate School Office, the student is given the name, office address and telephone number of the designated adviser. The advising program assists in the exploration of degree requirements, evaluation of applications for admission to a degree program, preparation of a plan of study, approval of program changes and when applying for a diploma.

Each prospective degree student is therefore encouraged to make use of this service since a program of study is valid only when properly authorized by a designated adviser and when it conforms with the minimum requirements of the Graduate School. Students who desire advising prior to making a decision on a degree program should contact the assistant dean of the Graduate School.

Students who are interested in completing a Provisional or Continuing Certificate should contact the Office of Academic Records and Certification for specific requirements. *Because credits earned to satisfy certification do not apply automatically to a degree program, students seeking certification are also urged to contact a degree adviser if the completion of a master's program is contemplated for a later date.*

COORDINATORS OF ADVISING BY PROGRAM AREA

College of Arts and Sciences

Applied Economics:
Raouf S. Hanna
703-D Pray-Harrold (487-0003)

Art-M.A. (Education, Studio), M.F.A.:
David Sharp
Ford Hall (487-1268)

Behavioral Services:
Peter Holmes
513 Mark Jefferson (487-0123)

Biology:
Najati S. Ghosheh
316-B Mark Jefferson (487-0441)

Chemistry:
Edward L. Compere, Jr.
212 Mark Jefferson (487-2027)

Communication and Theater Arts:
Parker R. Zellers
102 Quirk (487-1152)

Criminology and Criminal Justice:
Joseph Rankin
712-C Pray-Harrold (487-2330)

Development, Trade and Planning:
Raouf S. Hanna
703-D Pray-Harrold (487-0003)

M.A., M.F.A. Drama/Theatre for
the Young:
Virginia Koste
104 Quirk (487-0031)

Economics:
Raouf S. Hanna
703-D Pray-Harrold (487-0003)

English:
James A. Reynolds
613-J Pray-Harrold (487-1363)

General Science:
Daniel Trochet
302 Strong Hall (487-4144)

Geography:
Robert Ward
213 Strong Hall (487-3140)

C. Nicholas Raphael
118 Strong Hall (487-1480)

Historic Preservation Planning:
Marshall McLennan
225 Strong Hall (487-0232)

History and Philosophy:
Richard H. Abbott
702-N Pray-Harrold (487-0069)

Language and International Trade:
Raymond E. Schaub
Alexander Building (487-4448)

Liberal Studies
Social Science and American Culture:
Richard H. Abbott
702-N Pray-Harrold (487-0069)
Women's Studies:
Betty L. Barber
701 Pray-Harrold (487-1177)

Mathematics:
Kenneth Shiskowski
601 Pray-Harrold (487-1444)

Music:
Mary D. Teal
N-101 Alexander (487-0244)

Physics/Physics Education:
Richard Roth
303 Strong Hall (487-4144)

Psychology, Clinical/General:
Francis Canter
537-N Mark Jefferson (487-0044)

Public Administration:
Charles Monsma
714-H Pray-Harrold (487-0243)

School Psychology:
Gary Navarre
537-R Mark Jefferson (487-0047)

Social Science:
Richard H. Abbott
702-N Pray-Harrold (487-0069)

Sociology:
Patricia Ryan
712-S Pray-Harrold (487-1073)

Spanish (Bilingual-Bicultural Education):
Geoffrey Voght
Alexander Building (487-0178)

TESOL (Teaching English to Speakers
of Other Languages):
JoAnn Aebersold
Alexander Building (487-0319)

College of Business

Accounting and Finance:
Mohsen Sharifi
514-H Pray-Harrold (487-3320)

Business Administration:
Charles F. Hoitash
517 Pray-Harrold (487-4444)

Computer-Based Information Systems:
V.M. Rao Tummala
511-A Pray-Harrold (487-2454)

Organizational Behavior and
Development:
P. Nick Blanchard
504-J Pray-Harrold (487-0453)

College of Education

Elementary Education, Early Childhood
Education, Educational Psychology,
K-12 Curriculum, Middle School
Education, Reading, Secondary School
Teaching, Social Foundations:

James T. Bushey
Bernard Rose
Boone Hall (487-3260)

Certificate of Advanced Studies
in Curriculum & Instruction:
Robert Fisher
Boone Hall (487-3261)

Educational Leadership:
Jack D. Minzey
13 Boone Hall (487-0255)

Guidance and Counseling:
Benjamin W. Van Riper
13 Boone Hall (487-3270)

Physical Education:
John E. Sheard
233 Warner (487-0090)

Special Education, General:
230 Rackham (487-3302)

Special Education, Speech and Language
Impaired:
C. Wayne Fulton
231-A Rackham (487-4413)

College of Health and Human Services

Human, Environmental and Consumer
Resources:
R. Elaine Found
206 Roosevelt (487-2490)

College of Technology

Business Education:
Robert A. Ristau
Sill Hall (487-4330)

Industrial Education:
Harold E. PaDelford
Sill Hall (487-4330)

Industrial Technology:
Thomas G. Soyster
112 Sill Hall (487-2040)

Liberal Studies
Technology:
Ronald M. Westrum
Sill Hall (487-1161)

REGISTRATION INFORMATION

Students may not attend classes
unless they are properly registered and
have paid appropriate fees.

Permit to Register—New students who have satisfied all admission requirements, and returning students who *have not* been enrolled during one of the four preceding enrollment periods, must obtain a Permit to Register from the Graduate School Office before attempting to register.

Registration—Graduate students register for on- and off-campus classes in the Registration Office, Briggs Hall, at times and in such manner as provided for in the class schedules issued each semester or session.

Adviser's Signature on the Enrollment Plan—An adviser's signature is required for students in degree programs in business, economics, geography, hearing impaired, history, industrial education, industrial technology, mathematics, music, psychology, public administration, social foundations, sociology, speech and language impaired. Other students enrolling in either business or industrial education courses also must obtain departmental adviser's signature before registering. Students on degree programs who do not obtain the adviser's signature assume full responsibility for their registrations. *Courses that do not satisfy requirements on the student's program of study will not be applied toward the degree.* Any course substitutions made in a degree program must be approved by the adviser. Written notification of course substitutions must be placed on file in the Graduate School Office.

Registration in Undergraduate Courses—Some upper division 400 level undergraduate courses are identified in this catalog as available for graduate credit. Graduate School authorization for graduate credit must be obtained by the student before enrolling in these courses.

Some departments make no provision for the use of upper division courses on a graduate degree program; others make only limited use. In no case, however, may the number of upper division courses exceed nine semester hours. See Undergraduate Courses for Graduate Credit on page

Students should consult their department regarding its policy before seeking Graduate School authorization to enroll in upper division courses for graduate credit.

ACADEMIC LOAD

Twelve hours of graduate credit for the fall or winter semester is the usual full-time load. The usual full-time load for the spring or summer session is six hours. The coordinator of graduate advising and the dean of the Graduate School approve programs in excess of this load.

The usual academic load for graduate students employed in remunerative work on a full-time basis is six credit hours per semester. Special permission for a program in excess of this is obtained from their adviser and the dean of the Graduate School.

Since graduate assistantships are granted for the support of students making substantial academic progress, each person holding an assistantship is expected to enroll for a minimum of six credit hours per semester during the period of appointment. For the spring/summer session, two or three hours per session are required.

For Title IV programs and for Veterans' Benefits purposes, the following formula is used: *(Please note that per federal requirements, a student must be enrolled in at least four semester hours to be considered a half-time student.)*

Fall and Winter semesters

maximum load: 12 sem hours
full-time student: 8-12 hours
half-time student: 4-7 hours
less than half-time student: less than 4 hours

Spring/Summer sessions

maximum load: 8 sem hours
full-time and half-time student:
4 hours
less than half-time student: less than 4 hours

AUDITING COURSES

Graduate students who wish to audit a course must register for audit status and pay the same tuition and fees as for academic credit enrollment. No student may receive academic credit for audited courses. See class schedule for audit deadline.

REPEATING COURSES

For a variety of reasons, students sometimes find it desirable to repeat a course. When this occurs, the grade received in the second attempt is substituted for the first in the computation of the student's grade point average. However, the first grade remains on the record. A course may be repeated only once, and then only those courses in which grades of "E," "C-," "C," "C+" or "B-" were received the first time.

WITHDRAWAL

Policy and procedures have been established for withdrawal from the University and from individual classes. Because of this, appropriate procedures must be followed and *non-attendance and/or non-payment of tuition does not absolve one of academic and financial responsibility nor does it constitute withdrawal.*

WITHDRAWAL FROM INDIVIDUAL CLASS(ES)

First Three Weeks—Students who find it necessary to reduce their academic load may do so as part of the registration adjustment process at the Registration Office.

Fourth through 10th Week—During this period a student completes a Request for Withdrawal from Class form in the Registration Office. The student will receive a grade of "W" in each course if officially withdrawn during this period.

Beginning with the 11th Week—Students may withdraw from individual classes with a grade of "W" for any reason up to one week before the end of the semester, providing the academic performance in each course (graduate/undergraduate) is a grade of "B" or better at the time of withdrawal. Poor academic performance is not recognized as a valid reason for withdrawal. Because of this, students not performing at least at "B" level will be denied permission to withdraw with a grade of "W." Exceptions may be granted when due to extended personal illness, verifiable by a physician's statement, or death in the student's family.

Withdrawal forms are obtained from the Registration Office. Prior to considering withdrawal, a student should

consult with the instructor(s). Policies governing the refund of tuition and fees are to be found in another section of this catalog.

The spring and summer class schedules should be consulted for the calendar regulating withdrawals during these enrollment periods.

See page 28 for tuition and fee information.

WITHDRAWAL FROM ALL CLASSES

Students may withdraw from all classes (withdraw from the University) for a given enrollment period for any reason up to one week before the end of the semester and receive grades of "W" for all courses in which they are enrolled.

GRADING SYSTEM

The grades used in the Graduate School of the University are listed below together with their description and grade point values.

GRADE POINT PER SEMESTER HOUR

	Effective Fall 1979
A Outstanding Performance	4.0
A-	3.7
B+	3.3
B Good Performance	3.0
B-	2.7
C+	2.3
C Inadequate Performance	2.0
C-	1.7
E Failing Performance	

Credit/No Credit—The Graduate School awards Credit/No Credit in only theses, practica, selected field work, selected independent study courses and special cases such as exhibitions in art.

Academic departments may recommend for approval by the graduate dean those appropriate types of courses for inclusion on the approved list of Credit/No Credit courses. It is not a student prerogative to elect a course for Credit/No Credit. Only previously designated courses are available for such credit.

To receive credit for a Credit/No Credit course, a student must perform in a manner equal to the "B" level according to the judgment of the faculty supervising the student's work.

"I"—Incomplete—An "I" grade is awarded when these conditions prevail: illness or extenuating circumstances beyond the control of the student which have prevented completion of the required components of the course; academic performance for the completed portion of the course was equivalent to a grade of "B" or better.

In such cases, the instructor will provide the student and the department head with a statement of the reason or reasons for the "I" grade and will specify the amount and nature of the work required in order to remove the Incomplete.

An "I" grade must be removed within one calendar year from the end of the semester or session in which that grade was issued. The time for removal of an "I" may be extended upon written recommendation of the instructor and department head, and approval of the graduate dean. Such an extension will be granted only under unusual circumstances. THE INITIATIVE FOR CONVERSION OF AN "I" TO A LETTER GRADE RESTS WITH THE STUDENT. If not converted to a letter grade by the end of the one year period, the "I" will remain as a permanent part of the student's academic record.

Incompletes received in thesis type courses are not governed by these regulations.

"W"—Denotes Withdrawal—The grade of "W" will be assigned only when the previously described withdrawal process has been completed. If a student stops attending a class without officially withdrawing, the grade of "E" will be assigned for the course.

ACADEMIC PROBATION AND DISMISSAL

A graduate student will be placed on academic probation when the cumulative grade point average in courses taken for graduate credit at Eastern Michigan University is less than 3.0 ("B" average). A graduate student placed on academic probation who does not remove his/her probationary status at the end of the next two periods of enrollment will be subject to dismissal from the University for academic reasons.

A graduate student whose cumulative grade point deficiency at the end of any enrollment period is fifteen (15) points or more will be subject to dismissal for academic reasons.

Grades in courses for undergraduate credit and in courses accepted as transfer credit from other institutions are *not used* in computing the grade point average.

REINSTATEMENT AFTER ACADEMIC DISMISSAL

Students who have been academically dismissed from the Graduate School may petition the Graduate Dean for re-entry. The procedures adopted by the EMU Graduate Council includes:

1. The student must submit a formal written petition requesting that the Graduate Dean consider recommending the student's re-admission to the Graduate School. This written statement should include information which reveals the causes of the student's academic problems; the modification/changes in the student's individual situation which have occurred and how such will presumably help to rectify the situation; and the student's proposed plan of action to become successful in his/her graduate studies.
2. Upon receipt of such written request/petition, the Graduate Dean will review the rationale which the student has delineated and determine whether the student has adequately justified the academic dismissal and included an effective plan of action with realistic prospects for improving the student's academic standing with the Graduate School.
3. Should the Graduate Dean require additional information from the student, a meeting with the student will be requested in order to seek further clarification and/or develop a timetable from which the student will work to achieve good academic standing with the Graduate School.
4. The student will be notified of the decision.

TRANSFER OF CREDITS TO DEGREE PROGRAMS

From Other Institutions

Of the total number of credits required on a master's degree program a minimum of 18 semester hours must be taken at Eastern Michigan University; for specialist's degree programs (the 32 hours required beyond the master's) a minimum of 24 hours must be taken at this University. Any graduate credit transferred must:

be applicable to the degree program;

have associated with each course a grade of "B" or higher;

be viable in terms of the six year time limitation for completion of degree requirements;

appear on an official graduate transcript from an accredited degree granting institution;

be upon recommendation of the adviser and the approval of the Graduate School.

Such credits are recorded on the student's permanent record card only when a program of study is on file in the Graduate School office.

From Special Student Status

Students admitted to Special Student status may apply for admission to a degree program after meeting all special entrance requirements of the academic area of specialization selected. Admission Transfer Request forms are available in the Graduate School office and must be submitted to that office at least two months prior to the semester or session that transfer is contemplated. A request for admission to a degree program will be approved *only* upon written recommendation of the coordinator of graduate advising in the area of specialization.

Credits earned while on Special Student status do not automatically apply to the requirements of a degree program. Transfer of credits depends upon the requirements of the program, the recommendation of the adviser, and the approval of the Graduate School office. *A student transferring from Special Student status must complete a minimum of ten graduate hours after admission to a degree program.*

From a Previous Master's Degree

On occasion, individuals may wish to obtain another master's degree. Appropriate credit from a previous master's degree may be applied to the second program under these conditions:

the degree be in a discipline different from the previous master's degree;

not more than six (6) semester hours of appropriate credit may be applied.

UNDERGRADUATE COURSES FOR GRADUATE CREDIT

1. Effective with the winter semester 1982, no more than three (3) credits of 300 level coursework are permitted in the earning of any graduate degree at Eastern Michigan University. (*This will affect new students only and will not be applied retroactively to students admitted prior to the winter semester 1982.*)
2. Effective with the winter semester 1983, no 300 level coursework is permitted in the earning of any graduate degree at Eastern Michigan University. (*This will affect new students only and will not be applied retroactively to students admitted prior to winter semester 1982.*)
3. Effective with the winter semester 1982, no more than nine (9) credits of undergraduate (300 and 400 level combined) coursework are permitted in the earning of any graduate degree at Eastern Michigan University. (*This will affect new students only and will not be applied retroactively to students admitted prior to the winter semester 1982.*)

COURSE NUMBERING SYSTEM

300: Prior to winter semester 1983, the Graduate School approved graduate credit for selected junior (300 level) courses. For information on availability of graduate credit, see the policy regarding Undergraduate Courses for Graduate Credit on page 20.

400-500: For advanced undergraduates and graduate students. Lists of senior level courses available for graduate credit are to be found toward the end of the departmental sections in this catalog. The 500 numbered courses

are open to advanced undergraduates under existing policies; see page 22.

600: For graduate students only.

700: Courses that are utilized on specialist's degree programs and other advanced level graduate work as well as the master's in fine arts.

REGARDING TEACHER CERTIFICATION

Most questions regarding teacher certification should be directed to:

For Provisional Certificate:
Office of Academic Records and Certification

*Room 5, Pierce Hall
Ypsilanti, Michigan 48197
Dial (313) 487-4111*

For Continuing or Renewal Certificate:

*Nancy L. Dahl, Associate Director
Academic Records and Certification
Room 5, Pierce Hall
Ypsilanti, Michigan 48197
Dial (313) 487-4111*

In some unusual circumstances it may be desirable to seek information from the state office. In those cases, write to:

*Michigan State Department of
Education
Teacher Education and Certification
Section
Box 30008
Lansing, Michigan 48909*

PROVISIONAL CERTIFICATE

(*Students who hold a bachelor's degree*)

Graduates of Michigan institutions:

A graduate of a Michigan institution must be recommended for certification by a Michigan teacher training institution. The certificate will usually be recommended by the institution offering the professional education program.

When part of the professional education courses were completed at the degree granting institution, it may be advantageous to ask that institution to make the recommendation and approve the balance of requirements being completed at Eastern Michigan University.

Graduates of approved out-of-state teacher training insitutions:

1. Persons with an earned bachelor's degree who hold a currently valid teaching certificate in another state based on the completion of an approved teacher education program in that state may apply to the State Department of Education for a Michigan Provisional Certificate. Application forms are available in the Academic Records and Cerufication Office, Room 5, Pierce Hall.
2. Persons who have completed 12 or more academic credit hours on an education program at a regionally accredited out-of-state institution approved for teacher training may apply to the state Department of Education for an evaluation of their credentials to ascertain what courses they will need to take to qualify for a Michigan Provisional Certificate. Application forms are available in the Academic Records and Certification Office.

The student then applies for admission to the Graduate School and submits a copy of the plan of work prepared by the state Department of Education to the Graduate Office.

3. Graduates who do not fit category one or two must be recommended for certification by a Michigan teacher training institution. Although requirements vary depending upon the curriculum pursued, the basic minimum requirement for recommendation for certification is normally 30 semester hours work with Eastern Michigan University. Information about the specific requirements for certification may be obtained from the EMU Academic Records and Certification Office. A written plan of work will be provided on request, following admission to the Graduate School.

Additional elementary provisional or secondary provisional certificate:

Persons seeking to qualify for an additional provisional certificate must complete a minimum of 12-18 semester hours of credit following the first certificate which includes the appropriate methods courses and three (3) hours of student teaching or proof of two (2) years teaching experience appropriate to the level of certification sought. A written plan of work will be provided by the Academic Records and Certification Office on request, following admission to the Graduate School.

Additional teaching majors and/or minors:

Persons who seek to broaden their teaching qualifications by the addition of majors and minors do so by completing the course work required.

1. Minor—a minimum of 20 hours in courses appropriate to the pure minor or 24 hours in a group minor. Major—a minimum of 30 hours in courses appropriate to the pure major or 36 hours for a group major.
2. Students should contact the Academic Records and Certification Office for information about course requirements. Departmental approval may also be required. A copy of the approved plan of study must be placed on file in the Graduate Office.

Renewal of a provisional certificate:

Persons whose provisional certificate has been permitted to expire without having acquired three (3) years of successful teaching experience may renew the certificate by completing ten hours of approved credit after the issuance of the provisional certificate. Application to renew an expired certificate is made through an approved teacher training institution where a person has earned at least ten semester hours of approved credit following the provisional certificate as part of the 18 hour planned program for a continuing certificate.

Certification in special fields (art education, physical education, industrial education, special education, home economics, music, reading): Persons seeking certification in a special field should contact the Office of Academic Records and Certification for more information. A copy of the approved plan of work must be placed on file in the Academic Records Office.

Certification in special fields (art education, physical education, industrial education, special education, home economics, music, reading): Persons seeking certification in a special field should contact the Office of Academic Records and Certification for more information. A copy of the approved plan of work must be placed on file in the Academic Records Office.

CONTINUING CERTIFICATION*

Persons may apply for the continuing certificate upon completion of three (3) years of successful teaching and 18 semester hours of credit earned on a planned program after the date of issuance of the state provisional certificate. The recommendation must be made by the Michigan teacher training institution which approved the 18 semester hour planned program and where the majority of the 18 semester hours was earned.

Students on master's degree programs appropriate to K-12 education may apply the first 18 hours of a degree program toward this requirement. For this reason, applicants seeking continuing certification are strongly urged to seek admission to a degree program.

All other students who wish to be recommended for continuing certification by Eastern Michigan University should have a plan of work approved by the Director of Academic Records and Certification on file in the Graduate Office before enrollment in courses.

Use of Credit

Undergraduate credit earned to satisfy the requirements for a provisional certificate cannot apply to a graduate degree.

Graduate credit earned for a provisional certificate cannot apply to the requirements of a continuing certificate.

Graduate credit earned for a continuing certificate may apply to a graduate degree only if it meets the requirements of a degree program, the recommendation of the adviser and the approval of the Graduate School Office.

**To qualify for the continuing certificate, all candidates must also satisfy the Michigan Department of Education's reading methods requirements (effective July 1, 1983).*

ENROLLMENT IN GRADUATE COURSES BY ADVANCED UNDERGRADUATES

An advanced undergraduate student in good academic standing at Eastern Michigan University may register for specified graduate courses if recommended by the adviser and approved by the dean of the Graduate School. Credit so earned may be used for only one of two purposes:

- to meet the requirements of the baccalaureate degree, thus receive undergraduate credit;
- to apply towards a master's degree, thus receive graduate credit.

A student may not use graduate courses for both.

To be eligible for either, a student must have undergraduate admission at Eastern, have acquired 76 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. Advanced undergraduate 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 an advanced undergraduate should not prolong the completion of the undergraduate degree requirements.

The maximum number of graduate hours that can be taken as an advanced undergraduate student is fifteen (15). See Course Numbering System, page 20, for courses available to advanced undergraduates.

There are several restrictions on the use of credit earned in graduate courses by advanced undergraduates:

- Permission to take graduate courses does not represent degree admission to the Graduate School.
- Students desiring to continue graduate study and utilize the graduate credit earned in courses taken as an advanced undergraduate must apply and meet all requirements for admission to the Graduate School and degree program.
- Graduate courses taken for either undergraduate or graduate credit and taken prior to receipt of a provisional teaching certificate cannot be used

to satisfy any requirement of the continuing certificate.

Advanced undergraduates are not permitted to enroll in 600/700 series courses.

INDEPENDENT STUDIES

Independent Study is designed to enable graduate students to pursue academic interests beyond those normally covered in conventional courses. Independent Study is structured on a tutorial basis, affording opportunity for student and faculty interaction on a project of joint interest. *No more than six (6) hours of independent study may be used on a degree program.*

Expectations Regarding Instructional Requirements

- A clearly defined proposal for the study is presented by a student and approved by a professor before enrollment.
- Regular student/faculty meetings to monitor progress and to provide assistance.
- Evaluation established on the basis of the completed product.

THESIS

Aside from independent studies, more opportunity for the degree students to demonstrate individual initiative and creativity is provided by a number of departments where the writing of the thesis is offered either as an option or as a requirement. Taken toward the end of a student's program of study, it serves as a capstone experience affording an opportunity for the integration of one's specialized subject matter. *No more than six (6) hours of thesis may be used on a degree program.*

Guidelines and requirements governing this activity are available through the departments or the Graduate School office.

GENERAL POLICIES AND INFORMATION

INFORMATIONAL BROCHURES

The Graduate School has published the following brochures which describe various services available to graduate students, and which are available at the Graduate Office, 116 Pierce Hall:

- University Services for Graduate Students
- Financing Graduate Study at Eastern
- Career Perspective on Graduate Education at Eastern
- Graduate Assistantships at Eastern Michigan University
- Minority Graduate Assistantships

In addition, specific brochures or fact sheets are available about each of the graduate programs that the University offers and are available upon request either from the appropriate department or the Graduate Office, 116 Pierce Hall.

MAJOR BUILDINGS AND OTHER FACILITIES

ALEXANDER MUSIC BUILDING

This building, completed in 1980, houses the Department of Music offices, practice studios and large rehearsal halls.

The Department of Foreign Languages and Bilingual Studies is also housed in the Alexander Music Building.

BUSINESS AND FINANCE BUILDING

The Business and Finance building houses Accounting, Purchasing and Payroll.

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. The complete field house floor has been hard surfaced and the eight-lap-to-a-mile track has been surfaced with Grasstex, providing one of the finest indoor tracks found anywhere. This facility also has a basketball court, three tennis courts, eight badminton and three volleyball courts in the infield. The present seating capacity for basketball is 5,500.

WALTER O. BRIGGS BUILDING

Originally constructed as a first unit of a field house, the Briggs building was first converted to classroom use and has recently been converted to house the Office of Registration and Student Accounting and Cashiers for the payment of tuition and room and board.

CAREER SERVICES CENTER

Formerly the D'Ooge residence, this facility, located in Goodison Hall, provides offices, records, and interview rooms for career planning, student part-time and summer employment, and career placement for graduating seniors and alumni.

CENTER OF EDUCATIONAL RESOURCES

The University Library, which opened at the beginning of the spring semester, 1967, provides more than five times the floor space and double the book capacity of the old Mark Jefferson Library. The seating capacity is 1,800, and there are more than 800,000 items available for use, including books, bound periodicals, documents and microforms. Most materials are on open shelves and are readily available for home or library use when not on reserve. The Media Services Center complements the library collection with non-book materials and a listening center.

The Instructional Support Center is also a part of the Center of Educational Resources.

R. CLYDE FORD HALL

The former Mark Jefferson Library, renamed R. Clyde Ford Hall, has been remodeled to provide office and classroom space for the Television Center and the Art Department. The building originally was opened in 1929 and was remodeled in 1967 and 1982.

BERTHA M. GOODISON HALL

This building at present houses the offices of Dean of Students, Student Government, Student Publications, Minority Affairs, Campus Life, Veterans' Affairs, Foreign Student Affairs, Women's Commission, Upward Bound, International Studies, Humanities Program, Faculty Council, Continuing Education, Center for Afro-American Studies, and Student Organization offices.

MARY GODDARD HALL

This building, erected in 1955, is primarily a residence hall but, in addition, houses the University Honors Program, and classroom space for Industrial Education.

J.M. HOVER LABORATORY

This building, completed in 1941, houses laboratories of the Department of Biology, also a greenhouse and plant laboratory and the Bio-career Center.

MARK JEFFERSON HALL

This building, completed in the fall of 1970, houses the Departments of Chemistry, Biology and Psychology. This new building has completely equipped modern laboratories for these departments and greatly enhances their preparing of students in these fields of study.

JULIA ANN KING HALL

Renovated in 1971, the Julia Ann King Hall houses the Nursing Education Department, the dean of the College of Health and Human Services, Occupational Therapy, the Medical Technology Program, the Social Work Department, the University radio station, WEMU-FM, and Human Resources, including Personnel, Staff Benefits, Compensation, Staff and Union Relations and Staff Training and Development.

CHARLES MCKENNY HALL

Charles McKenny Hall, named after a former president of the University, is the student union and social center of the University.

The facility was completely remodeled in 1964-65 and a large addition added, doubling its original size. It now houses cafeteria and dining services, snack bar, University bookstore, bowling alley, billiard room, offices for student

organizations, lounges, meeting rooms, a large ballroom, and the offices of Development and Alumni Relations.

OLDS STUDENT RECREATION CENTER

Eastern Michigan University's new Olds Student Recreation Center is designed to provide students with the best in modern recreational facilities for year-round weekday and weekend use. Students have been involved in planning the facility from the very beginning, and a committee with a majority of students manages and schedules the building to ensure student needs are met.

Located in the center of campus, the new facility contains 15 racquetball/handball courts, four basketball courts, two multipurpose gymnasiums, a weight room, a slimnastics room and an exercise tract. Other features include a 50-meter pool with seating capacity for more than 800 spectators, a pro shop, a concession stand, balcony, lounges and an electronic games area. The new swimming and diving pool is scheduled for recreation, laps, diving, life-saving and synchronized ballet. The weight room and slimnastics area are equipped with weight machines and other exercise equipment to assist students in physical fitness and conditioning programs. The two multipurpose gyms are available for those interested in wrestling, gymnastics, dancing or any of the combative arts. The lounge and games areas provide a relaxing atmosphere for meeting friends for a game of foosball or pinball. Also, the Warner pool has been refurbished to be used solely for recreational purposes and features a sauna and a walk-in whirlpool. Fees will be assessed only to non-student users of the facility.

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 structure also houses the University Safety Department.

FREDERIC H. PEASE AUDITORIUM

This building, completed in 1914 and named for Frederic H. Pease, longtime head of the Conservatory of Music,

houses part of the Department of Music activities. The auditorium seats 1,700 and is the center for many University and civic activities. In the auditorium is the \$100,000 Frederick Alexander Memorial Organ. Pease Auditorium is current being renovated.

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 Computer Science, the College of Business, and the University Computing Center. Located north of the University Library, the building was completed in June 1969.

DANIEL L. QUIRK, JR. DRAMATIC ARTS BUILDING

Opened in 1959, this modern drama facility contains an instructional theatre seating 381, a flexible laboratory theatre, scene and costume shops, radio facilities, an outdoor amphitheater, and classrooms and offices housing drama and speech activities of the Department of Communication and Theatre Arts.

A classroom and office wing was added in the spring of 1966 to accommodate the increased needs in speech, drama, radio and TV broadcasting, and film.

HORACE H. RACKHAM BUILDING

This building houses the Department of Special Education. It contains a new speech and hearing clinic, a diagnostic prescriptive clinic for learning-disabled children and their families, a pool and other facilities for physical therapy. It was constructed in 1938.

ROOSEVELT BUILDING

The former Roosevelt Laboratory School has been remodeled to house the

Departments of Home Economics, Military Science and Health Administration.

SCULPTURE STUDIO

Located on the north campus is the sculpture studio for the Art Department.

WILLIAM H. SHERZER HALL

This building, erected in 1903, houses classrooms and art studios.

J.M.B. SILL BUILDING

J.M.B. Sill Building houses classrooms and offices for the College of Technology, the Technology Services Center and the Departments of Industrial Technology, Business and Industrial Education and Interdisciplinary Technology. Also, large lecture halls used for classes in communication and theatre arts, social work, political science and special education are housed in this building.

GLENADINE C. SNOW HEALTH CENTER

This modern health service facility includes a pharmacy, medical laboratory, X-ray department, physicians' clinical offices, nurses' consulting rooms, and examination and treatment areas. In addition, this building houses the offices of the Counseling Center, Information Services, Research Development, and the University Child Care Center.

MARY ANN STARKWEATHER HALL

This building, the gift of Mrs. Mary Ann Starkweather, was erected in 1897 and was remodeled and modernized in 1961. Starkweather Hall is the home of the Admissions-On Campus Program, which provides services for the University community and visitors. Programs include the Parents' Association, EMU Candidats, Information Center, campus visitations and tours.

EDWIN A. STRONG PHYSICAL SCIENCE BUILDING

This building, opened in the fall of 1957, houses the Departments of Physics and Astronomy and Geography and Geology. Now in operation are the laboratory and lecture hall units. The building is named after Edwin A.

Strong, head of the Physical Science Department between 1885-1916.

JOSEPH E. WARNER PHYSICAL EDUCATION BUILDING

This facility, completed in 1964 and immediately adjacent to Bowen Field House, provides an athletic and physical education plant. Housed in this building are gymnasiums, classrooms, offices, special-purpose rooms, a swimming pool and the Human Performance Laboratory.

FIELDS AND OUTDOOR FACILITIES

KRESGE ENVIRONMENTAL EDUCATION CENTER AT FISH LAKE

This property, purchased in 1965, is being developed primarily as a center for experimentation in and dissemination of environmental education programs. Another major role is as a site for resident field study in various disciplines of biology and other environmentally focused subjects.

The center is located in Mayfield Township of Lapeer County and has a wide variety of topography and habitat. A natural lake, a man-made impoundment and a bog offer diversity for aquatic studies.

The site is 214 acres in area, and is surrounded on three sides by 4,000 acres of the Lapeer State Game Area. Present facilities include a dormitory which houses 64, a dining commons which can feed 200, a remodeled one-room school house and four modular units which house the center office and provide staff housing and an additional lab-classroom.

CLARENCE M. LOESELL FIELD LABORATORY

Located west of campus, this tract of about 21 acres was dedicated in 1958 to the memory of Clarence M. Loessel, longtime head of the Natural Science Department (present Biology Department). It includes a considerable variety of habitat and wildlife and is used in the teaching and research program of the department.

MAIN CAMPUS

On the main campus there are 16 tennis courts, five large play fields suitable for field hockey, football, practice baseball diamonds and women's sports. Recently constructed is the equivalent of four softball diamonds or two football fields—all under light for night-time use. They are used by the physical education classes, by the intramural program and for general recreational purposes. The main campus consists of 217 acres.

WEST CAMPUS

An area of 142-acres was purchased in 1965 and an additional 40 acres purchased in 1967 to allow expansion of the academic campus into the site of athletic areas on the main campus. The new site contains a baseball stadium, football stadium, all weather running track, six intramural fields, two practice football fields and room for future expansion and growth of similar facilities.

RYNEARSON STADIUM

This facility was ready for the 1969 fall football season and contains 12,500 permanent seats on the west side of the field allowing for temporary bleachers which expand the seating on the east side of the field to 22,000. Also included are complete press box and locker room facilities.

BRIGGS FIELD

This facility is a baseball field with a grandstand seating 2,500 people under cover. First used in the spring of 1968, it is among the finest baseball facilities in intercollegiate competition.

Division of Continuing Education

Today, more than ever before, Eastern Michigan University is realizing its responsibility to offer its services and facilities to the community at large and to the non-traditional student. For many years, the Office of Continuing Education, formerly the Division of Field Services at Eastern Michigan University, has maintained extensive in-service programs for students unable to complete their education on Eastern's campus and for employed teachers desiring to further their education. The

program is expanding greatly at this time. In addition, the campus is open to the public for conferences, both academic and non-academic, for adult education courses, for lecture series and for training programs. Faculty members and other trained personnel are available for lectures and consultation services to clubs, organizations and school systems.

The Office of Continuing Education welcomes inquiries about its program as well as suggestions for other services it might offer. Interested persons should write to the dean of Continuing Education, 319 Goodison Hall, Eastern Michigan University, Ypsilanti (487-0407).

IN-SERVICE COURSES

The Office of Continuing Education offers credit courses at 65 centers in 14 counties throughout southeastern Michigan. These classes are undergraduate and graduate courses conducted usually by regular instructors of Eastern Michigan University. At present, the classes are in virtually all fields connected with education, but an increasing number of courses in other disciplines are being offered to meet students' needs. A list of the courses offered for fall and winter semesters, spring and summer sessions may be obtained from the Office of Continuing Education.

Students who hold bachelor's degrees register in off-campus classes under one of the following categories:

Eastern Michigan University Degree Student status (see page 13), or **Special Student** status (see page 13).

University Housing/ Food Service

University Housing and Food Service offers a variety of housing and dining services as an aid to the academic achievement of both married and single graduate students.

Student families enjoy apartment style living offered in the University's three family housing communities which are convenient, low-cost, and offer an environment that shares an appreciation of the academic needs of the married student. One and two bedroom apartments are available, as are a limited number of unfurnished units. Rates for

1984-85 range from \$222 to \$269 per month including basic utilities.

Unmarried graduate students are welcome in any residence hall facility which appropriately meets their life style needs. Many, however, choose the graduate floor in Walton Hall. Walton-Putnam Hall is open year round for the convenience of graduate students who may have a more independent life style or who wish to pursue their studies during vacation breaks. Specific activities are also offered here which address the graduate students' need for intellectual, cultural and social interaction, and their increased sophistication.

Graduate students may select single, double or triple room accommodations to maximize either privacy or interaction. The rate for 1984-85 for a double room-twenty meal plan is \$2,618 per academic year. Single room premium rates are \$338 additional per semester. Reduced meal plan options and triple rooms decrease the cost of accommodation.

Graduate students who wish to minimize food preparation time but not choose a board plan, may purchase an a la Carte card which permits them to spend their prepaid balance at any dining commons, the Huron Hideaway snack bar and pizzeria or buy groceries at the Country Store. Inquiries should be directed to Housing/Food Service.

The unmarried graduate student interested in apartment style living will be particularly pleased with the Brown-Munson apartments. These furnished one and two bedroom units, located in the heart of campus, rent from approximately \$197—\$511 a month, depending on apartment size and number of occupants. All apartments are carpeted, air-conditioned, include basic utilities, and have security monitors for the exterior doors.

As space is limited, you should contact the University Housing/Food Service Office as soon as you are admitted. University Housing and Food Service is located on the lower level of Dining Commons #1 (313-487-1300).

Financial Assistance

There are several sources of financial assistance available to graduate students at Eastern Michigan University.

ASSISTANTSHIPS are available through academic departments, and are awarded on the basis of the qualifications of the

applicant. Each appointment requires considerable research time and precludes other employment. The academic year stipend ranges from about \$1,900—\$4,000. In addition, the University pays full tuition for up to 16 credit hours for each fiscal year of the assistantship, as well as registration and health service fees. The total assistantship award may pay up to \$6,300 per academic year depending on whether you receive a full-time or part-time assistantship or whether you are a resident or non-resident of Michigan. Graduate students interested in applying for such positions should write to their major area department head.

A limited number of assistantships are funded through the College Work-Study program. Interested students should contact their major area department head. Students need to submit the normal graduate assistantship application material, as well as the Family Financial Statement or Financial Aid Form for the College Work-Study program.

COLLEGE WORK-STUDY (CWS) is an employment program which allows students demonstrating financial need to work up to 20 hours per week on campus or at participating off-campus agencies. Student wages are paid 80% from federal funds and 20% from University funds. Hourly pay generally ranges from \$3.35 to \$4.55 for graduate students. Applications are available from the Office of Financial Aid.

STUDENT EMPLOYMENT listings for on and off-campus employment are maintained by the Eastern Michigan University Student Employment Office, Career Services Center. Many non-College Work-Study jobs are available. Students do not have to demonstrate financial need to work at non-College Work-Study jobs.

NATIONAL DIRECT STUDENT LOANS (NDSL) are long-term educational loans funded by 90% federal and 10% University contributions made to students demonstrating financial need. Graduate students may borrow up to \$2,500 per academic year. Repayment of the loan at 5% simple annual interest begins six months after the student leaves school. Loan repayment terms (minimum of \$90 every three months beginning six months after the student leaves school) must be arranged with the Student Loan Accounting Office before the student

leaves Eastern Michigan University. Applications are available from the Office of Financial Aid.

MICHIGAN GUARANTEED STUDENT LOANS (GSL) up to \$5,000 per year at 8% interest are available for graduate students from banks, savings and loan associations, and credit unions for full-time and half-time students. Interest payments are made by the federal government for eligible students while the students are still in school. Applications are available from participating lenders. Normal application processing time is eight to ten weeks. Other states have similar loan programs. Further information is available from the Office of Financial Aid.

MICHIGAN STATE DIRECT LOANS (SDL) are available for Michigan residents who cannot get guaranteed loans from commercial lenders and obtain a letter of denial. Graduate students can borrow up to \$5,000 or one-half the cost (whichever is less) at 8% interest. Applications and further information are available from the Office of Financial Aid. Normal application processing is six to eight weeks.

CAREER SERVICES CENTER

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

CAREER INFORMATION CENTER

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

STUDENT AND SUMMER EMPLOYMENT

Annually, thousands of students obtain part-time positions through the Student Employment Office. While the majority of these positions are on campus, a large number are in the surrounding community. They range from odd jobs and baby-sitting to extended part-time highly skilled positions.

The *Job Location and Development Program of the Student Employment Office develops off-campus career-related part-time and summer jobs for students.

Summer employment opportunities are available with camps, resorts, recreation, businesses and industries, governmental agencies, etc. Listings for such begin about Christmas time. Many summer employers schedule on-campus interviews through the Student Employment Office.

All students must make application with Student Employment in order to be placed in part-time positions with the University. On-campus employment is limited to 20-hours per week. Students who are eligible for the College Work-Study Program first gain approval in the Office of Financial Aid, 203 Pierce Hall.

The Student Employment telephone number is 487-0400. *J.L.D. telephone number is 487-0400.

CAREER SERVICES CENTER

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

Such assistance includes 1) credential reference services, 2) resume and letter of application assistance, 3) interview preparation and technique, 4) Placement Bulletin listing current vacancies, employers' addresses and method of contact, 5) on-campus interview appointments with employer representatives, 6) employer career literature, directories and job description materials and 7) a computerized referral center.

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

The telephone number of the Career Services Center is 487-0400.

Veterans Information

Veterans eligible for educational benefits under the G.I. Bill should supply the Veterans' Affairs Office at the University with their Certificate of Eligibility prior to the start of classes. *Students receiving benefits and not obtaining a satisfactory grade point average will be ineligible for further certification for such benefits at a point no later than one consecutive semester after the student initially failed to maintain satisfactory academic progress.* For information regarding payment of tuition and other matters of interest to the veteran, please contact the Veterans Affairs Office, 201 Goodison Hall.

Normally within one week of the end of each semester, the University mails a grade report for the term just completed to the student's home address, provided that the student does not have past due obligations to the University. Graduate students' academic records are kept on their permanent record cards in the Graduate School Office, room 116, Pierce Hall. Unless there are past due financial obligations, students may get a current transcript copy of their complete record by requesting it in writing from the Office of Academic Records and Certification, room 5, Pierce Hall, upon paying the transcript fee as stated on page 32.

Students receiving Veterans' Administration educational assistance benefits are held to the same standards of academic progress and social conduct as all other students.

Eastern Michigan University provides information about students receiving educational assistance benefits to the Veterans' Administration, in accordance with federal mandate and University policy.

EMU Child Care Center

The EMU Child Care Center offers educational and recreational programs for the 2½ to 12 year old children of all University families; students, staff and faculty. The center is staffed by certified, experienced teachers, with graduate and undergraduate students in education or related fields as their assistant teachers and aides. The programs offered are:

Daytime Program for Preschool (2½-5 years)

7:45 a.m.-5:15 p.m., Monday-Friday; fall, winter, spring and summer semesters.

Activities to promote growth in all areas: intellectual, social, emotional and physical. Creative projects, stories, music, science, cooking, learning games, outdoor play and gym.

Evening Program for School Age (6-12 years) and Preschool (2½-5 years)

4:45 p.m.-10:15 p.m., Monday-Thursday; fall and winter semesters. Gym, swimming, arts and crafts, science, cooking, woodworking, sports, drama, music and school work assistance plus preschool activities above.

After School Program for School Age (6-12 years)

2:45 p.m.- 5:15 p.m., Monday-Friday; fall, winter and spring semesters. See program description above.

Summer Program for School Age (6-12 years)

7:45 a.m.-5:15 p.m., Monday-Friday; summer semester. See program description above.

The center has a flexible scheduling system so that parents can design their children's schedule as needed for each term. Pre-arranged drop-in care is also available when there are openings. The center is on the ground floor of Snow Health Center, close to Pray-Harrold and the Olds Student Recreation Center. Please stop by or call 487-1126 for more information.

University Computing Services

Under an executive director of University Computing, access to a DEC-10 system, DEC-20 system, VAX 11/785 and many microcomputers is available.

Time sharing systems with unrestricted use are available to faculty, students and administrative offices.

Low to high speed printers, 150 computer terminals and 10 graphics terminals are placed at strategic locations around campus. Optical scanning equipment is also used for tests, course evaluations and research.

Students can develop skills from computer literacy to undergraduate and graduate computer majors and minors.

Center of Educational Resources

The Center of Educational Resources includes the University Library, Media Services Center and Instructional Support Center.

The University Library serves the graduate student by offering a wide variety of research materials and special services. A modern air-conditioned building, organized on an open-stack basis, provides a pleasant environment for research. Collections and services are divided among the units of Access Services, Social Sciences and Humanities, and Science and Technology.

The collection numbers more than 600,000 volumes of books, bound periodicals and documents, and some 350,000 microforms. Special collections include a large Instructional Materials Center, a map library, the University Archives and a collection of United States government documents. Services of particular value to graduate students are interlibrary loan and data base searching.

The Instructional Support Center and the Media Services Center, both located in the library, provide all types of audio-visual, television and film equipment, materials and services for individual or group use. There are film, filmstrip, audio tape, record and videotape collections, a language lab, a listening facility and an 80-station microcomputing lab.

Professional librarians and media specialists are available to assist graduate students in the use of the collections and services.

Technology Services Center

Established March 1, 1983, the Technology Services Center is an agency within the College of Technology at Eastern Michigan University. The primary role of the center is to provide business and industry with short- and long-term assistance in training, research, and development.

To date, this assistance has been pro-

vided on an international basis. Contractual agreements with industry have required center staff to work in many locations across the country, as well as Toronto, Canada, and Sao Paulo, Brazil. These contracts have also ranged in term from one day to one year; and much of the center's activities relate to work force on-site training in manufacturing plants.

At the present time, center staff are working with industries in numerous areas, including:

- statistical quality and process control;
- production methods and planning;
- computer hardware/software development;
- industrial research - electronics;
- cost justification/analysis - CAD and CAM.

The center is also able to provide services in a number of other areas. It should also be noted that the Technology Services Center is currently regarded as one of the premier agencies capable of providing comprehensive training and consultation in statistical process control (SPC) and experimental design/industrial statistics. Presently, center staff are involved in SPC training for both hourly and salaried personnel in a large number of diverse industries across the entire country.

Tuition and Fees

FEES SUBJECT TO REVISION

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

OFFICIAL REGISTRATION DAY

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

REGISTRATION FEE

A registration fee of \$20 for each of the fall and winter semesters, and of \$15 for each of the spring and summer sessions, is charged to each student.

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

TUITION SCHEDULE

Tuition will be assessed for all credit hours for which the student is registered. Off-campus tuition rates are the same as on-campus tuition rates. Regardless of student class level, undergraduate tuition will be assessed for all 100 through 400 level courses. Graduate tuition will be assessed for all 500, 600 and 700 level courses.

Tuition rates per credit hour for 1984-85 are:

Michigan and Ohio Residents	
Undergraduate Courses (100-400 level).....	\$45.75
Graduate Courses (500-700 level).....	\$63.00

Non-Resident	
Undergraduate Courses (100-400 level).....	\$112.00
Graduate Courses (500-700 level).....	\$147.00

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

QUALIFICATIONS FOR MICHIGAN RESIDENCE

Eligibility

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

I. Minors

The residence of a student who is not yet 18 years of age follows that of the student's parents or legal guardian. If that student's parents or legal guardian would qualify in accordance with the criteria listed in *VI. Criteria for Determining Intent*, that student shall be considered a Michigan resident for tuition purposes.

II. Non-Dependent Students

A student 18 years of age or older shall be eligible for classification as a

Michigan resident for tuition purposes if he/she qualified in accordance with the criteria listed in *VI. Criteria for Determining Intent*.

III. Spouse of Eligible Person

The residence of a student who otherwise would be classified as a non-resident for tuition purposes will follow that of the student's spouse, if the spouse is eligible for classification as a Michigan resident for tuition purposes. (Applicable only to U.S. citizens or to aliens admitted for permanent residence in the United States who have obtained a permanent or diplomatic visa.)

IV. Aliens

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

V. Migrants

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

VI. Criteria for Determining Intent

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

the intent of this policy.

a. High school or previous college attendance in Michigan.

b. Reliance upon Michigan sources for financial support.

c. Residence in Michigan of family, guardian, or other relatives or persons legally responsible for the student.

d. Former residence in Michigan and maintenance of significant connections therein while absent.

e. Continuous presence in Michigan during periods when not enrolled as a student.

f. Long-term military commitments in Michigan.

g. Acceptance of an offer of permanent employment in Michigan and source, length, and continuity of employment.

h. Traditional considerations made in determining legal residence; i.e., voter registration, ownership of real estate, source of driver's and vehicle licenses, taxpayer status, self-supporting or dependency on others whether residents of Michigan or elsewhere.

VII. Determination of Residence

A student's residence status shall be determined at the time of his/her initial admission to the University. This status may be reviewed at each subsequent registration. If a student's circumstances should change to the extent that he/she would no longer be considered a Michigan resident for tuition purposes, as herein described, that student shall be reclassified as a non-resident for tuition purposes six months thereafter.

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

TUITION RECIPROCITY AGREEMENT WITH OHIO

Ohio residents may now attend Eastern Michigan University at Michigan resident tuition rates, and Michigan residents of Monroe County can attend the University of Toledo at Ohio resident tuition rates.

The tuition reciprocity agreement was entered into by the Michigan State Board of Education and the Ohio Board of Regents. The agreement was effective with the fall semester, 1978.

AUDITING FEES

Tuition and registration rates for auditing classes are the same as for credit.

WORKSHOP SESSIONS

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

1. An adjustment of 100% of the tuition assessment will be made to those students who withdraw prior to the close of business (5:00 p.m.) on the first day of the session.
2. No other adjustment or refund will be granted.

FINANCIAL OBLIGATIONS

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

PAYMENT OF TUITION

The exact due date for tuition and other University fees is printed on the invoice from Student Accounting and is published in the Class Schedule Bulletin for each semester. To ensure a correct billing address, it is the responsibility of the student to inform the University of any address changes by completing a change of address form in the Registration Office.

Registration for the fall semester begins in late March and continues until the first day of classes. For this semester only, students may register at any time up to the registration verification date, which is approximately 30 business days prior to the first day of classes, by paying the \$20 registration fee. Payment of previously incurred University obligations will not be required for registration prior to the registration verification date. Students will, however, be required to pay all previously incurred University obligations, and to make payment of at least 50% of all fall semester costs, by the registration verification date or their registrations will be automatically cancelled; their registration fees will be forfeited; and those classes will be made available to other students. Students whose registrations have been cancelled by this process may re-register upon payment of another registration fee of \$20, all past-due accounts, and at least 50% of all fall semester costs.

For those students who prefer to make installment payments, the University provides an optional installment payment plan for the fall and winter semesters only. The installment payment plan applies only to tuition and room and board. It consists of a minimum initial payment of 50% of the room and board and tuition assessments for the semester, and payment of all remaining charges in a second installment due during the eighth (8th) week of the semester. Specific due dates are published in the Class Schedule Bulletin for each semester.

Students who register after the registration verification date for fall semester are required to pay 50% of assessed tuition and all of any miscellaneous fees *at the time of registration*.

An installment payment service fee of \$5 is collected with the second installment payment.

A late payment fee of \$6 is assessed if the second payment is not received by the due date.

Winter semester registration procedures require that students will pay as a minimum the \$20 registration fee, 50% of all assessed tuition and all of any miscellaneous fees at the time of registration.

Spring and summer session registration procedures require that students pay for each session the \$15 registration

fee and all assessed tuition and miscellaneous fees at the time of registration. *There is no provision for installment payment for spring or summer sessions.* Registration procedures require that students pay for each session the \$15 registration fee and all assessed tuition, board, room and miscellaneous fees at the time of registration. *There is no provision for installment payment for spring or summer sessions.*

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

If a student's account is past due for a current semester, enrollment, University housing and other University services (such as release of grades or certified transcript) are subject to suspension until the account is brought into current status. Payment of assessments for a current semester does not relieve the student of the obligation for payment of any balance from a prior semester. The privilege of using the installment payment plan for payment of tuition and room and board is denied to students whose University account has been in arrears in amounts exceeding \$100 for periods beyond 30 days at any time after September 1, 1979.

PROGRAM ADJUSTMENT FEE

For three (3) to five (5) days prior to the beginning of classes, program adjustments may be made with no assessment of an adjustment fee. During this period, each academic department will maintain a station at one central location to assist in program planning and solving scheduling conflicts. At least 50% of the increased tuition, resulting from adjustments, must be paid at the time of adjustment.

During the first seven (7) class days of the fall and winter semesters, a program adjustment fee of \$10 per transaction will be assessed for each student-initiated program adjustment. For the purpose of determining the program adjustment fee, one drop accompanied simultaneously by one add will be considered as one transaction. Individual adds or individual drops will be considered as individual transactions, and will be assessed \$10 each. At least 50% of the increased tuition, resulting from

adjustments, must be paid at the time of adjustment.

The spring and summer class schedules should be consulted for the calendar regulating program adjustment fees during these enrollment periods.

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

LATE REGISTRATION FEE

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

CANCELLATION OF REGISTRATION

If a registered student should decide *before* classes begin not to return to Eastern, he/she must initiate a cancellation of registration form in person or by letter through the Registration Office, Briggs Hall. If the student has applied for University housing, the contract must also be canceled in the Housing Office. This is necessary for cancellation of tuition and room and board assessments.

WITHDRAWAL FROM THE UNIVERSITY

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

1. A credit adjustment of 100% of the tuition assessment for the fall and winter semesters, less a late withdrawal fee of \$10, will be made to those students who cancel their registration or withdraw from the University prior to the sixth (6th) class day. For the spring and summer sessions, a 100% credit adjustment, less a late withdrawal fee of \$10, will be made during the first three (3) days of classes. Actual dates are printed in the Class

Schedule for each semester and session.

2. A credit adjustment of 50% of the tuition assessment for the fall and winter semesters will be made to those students who withdraw from the University between the sixth (6th) and 15th class day. For the spring and summer sessions, a 50% credit adjustment will be made during the fourth (4th) through the seventh (7th) class days of the session. Actual dates are printed in the Class Schedule for each semester and session.
3. No credit adjustments will be made after the above stipulated dates.

Decrease in Academic Load

1. A credit adjustment of 100% of the difference in tuition assessment for the fall and winter semesters will be made to those students who decrease their academic load prior to the sixth (6th) day of classes. For the spring and summer sessions, a 100% credit adjustment will be made during the first three (3) days of classes. Actual dates are printed in the Class Schedule for each semester and session.
2. A credit adjustment of 50% of the difference in tuition assessment for the fall and winter semesters will be made to those students who decrease their academic load between the sixth (6th) and 15th class day. For the spring and summer sessions, a 50% adjustment will be made during the fourth (4th) through seventh (7th) class days of the session. Actual dates are printed in the Class Schedule for each semester and session.
3. No credit adjustments will be made after the above stipulated dates.

ACCOUNT ADJUSTMENTS AND REFUNDS

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

First Step—Contact the general supervisor, Student Accounting, Briggs Hall (313-487-3335). Explain your extraordinary circumstances, and request an

appropriate resolution. If request is denied, you may then:

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

GRADUATION FEE

A graduation fee is charged to each student who makes application for graduation. The fee is non-refundable and is assessed only once for each degree; master's and specialist's degrees: \$25.

HEALTH SERVICE FEES

Effective fall semester, 1984, all students will be charged a student health service fee of \$1.25 per on-campus credit hour. This will be shown as a separate fee on all students' bills.

APPLIED MUSIC FEE

All students accepted for private music lessons will be assessed an applied music fee. Applied music fee rates for 1984-85 are:

Music majors:

\$60 per semester for all instruction.

Graduate and other University students:

\$60 per semester for one-hour lesson.

\$30 per semester for half-hour lesson.

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

\$90 per semester for one-hour lesson.

\$45 per semester for half-hour lesson.

Lessons are arranged through the Music Department.

The applied music fee is assessed to each student's account at the close of the program adjustment period. This fee is not refundable after the first lesson.

OTHER COURSE FEES

Fees are assessed at the close of the program adjustment period to cover extra costs and materials involved with certain courses. These courses are identified in each semester's class bulletin.

Business Education: Typing courses, calculator applications.

The number of courses and the number of departments involved will be expanded effective with the winter semester 1985.

departmental summaries are designed to serve as a guide to program planning and are subject to specific determination and consultation with the department adviser.

PLACEMENT BULLETIN

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

TRANSCRIPT FEE

Each student is furnished one official transcript at the time of graduation without charge.

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

VEHICLE OPERATION AND PARKING

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

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

FEES SUBJECT TO REVISION

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

DEPARTMENTS OF INSTRUCTION

The courses here listed are those which have been authorized in accordance with policies approved by the Graduate Council. Class schedules must be consulted for courses to be offered during a given semester or term since the frequency of offering of each course is determined by the department as program needs dictate, with no assurance that a given course will be offered every year. The requirements as stated in the

COLLEGE OF ARTS AND SCIENCES

DEAN: Donald F. Drummond

DEPARTMENTS

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

ART

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

David Sharp
Coordinator of Advising
Ford Hall
487-1268

The Art Department offers three programs leading to the master's degree: the Master of Fine Arts, the Master of Arts (Art Education), and the Master of Arts (Studio). Concentrations leading to the Master of Arts (M.A.) degree are offered in art education and studio art. The 60-hour Master of Fine Arts (M.F.A.) degree has a residential requirement. See page 34.

ADMISSION REQUIREMENTS

Master of Fine Arts

As a prerequisite for admission, the Master of Fine Arts degree applicant must have an undergraduate degree, with a major in art, from an accredited institution and must meet degree admission standards of the Graduate School. Application for entering the M.F.A. program involves the following three steps:

1. Send an application for admission to graduate status, supported by transcripts of all undergraduate and graduate credit at each institution attended, to Graduate School Admissions, Eastern Michigan University, Ypsilanti, Michigan 48197.
2. Send an application for admission to the M.F.A. program to: Coordinator, M.F.A. Program, Art Department.
3. Have three letters of recommendation sent to coordinator, and send a portfolio of 10-15 color slides and/or photographs of recent work. (Applicants in three-dimensional disciplines may submit multiple views of examples.)

Applications received by March 15 for fall semester and by November 1 for winter semester will be given priori-

ty. Late applications are acceptable and will be considered as studio space permits.

Master of Arts (Art Education)

Application for graduate work in art education should be made to the Graduate School, 116 Pierce Hall, Eastern Michigan University. The requirements are a minimum of 34 semester hours of art education and studio art with a minimum 2.8 grade point average in these classes. In addition each student will be evaluated on the basis of a portfolio submitted to the Art Department. The portfolio will be in the form of at least 10-15 slides, presented in a clear plastic holder. All slides should be individually labeled and identified. Applicants should also submit a letter of purpose outlining aspirations in graduate work. Each applicant is expected to hold a teaching certificate for the teaching of art.

Master of Arts (Studio)

Designed for those seeking an advanced degree in studio art.

Applications for admission to the program in studio art should be sent to the Graduate School, 116 Pierce Hall,

Eastern Michigan University. An undergraduate degree with a major in art is required, with a minimum grade point average of 2.8 in art classes. A portfolio of 10-15 slides and/or photographs is required. Send portfolio to: Coordinator, M.A. Program, Art Department, Eastern Michigan University. Label each slide with name, title of work, medium or media, size, and date of completion. A student may be required, after review by the M.A. Committee, to make up deficiencies at the undergraduate level.

DEGREE REQUIREMENTS

The graduate adviser will meet with each student to construct a program of study. The Master of Fine Arts program requires a minimum of 60 semester hours beyond the bachelor's degree. The Master of Arts (Art Education) program requires a minimum of 30 semester hours beyond the bachelor's degree. The Master of Arts (Studio), requires a minimum of 30 semester hours beyond the bachelor's degree. The Art Department offers concentrations in drawing, graphic design, painting, printmaking, photography, sculpture, ceramics, jewelry, textiles, and multimedia.

Master of Fine Arts

- Two years of residence is required.
 - At the end of the first year, the work of each M.F.A. student will be reviewed by the M.F.A. Committee. The student is either allowed to continue or is formally asked to withdraw from the program.
 - Course requirements:
 - FA 630 Graduate Studio (9)
 - FA 631 Graduate Studio (9)
 - FA 695 Seminar in Contemporary Ideas in Art (3)
 - FA 696 Seminar in Contemporary Ideas in Art (3)
 - FA 732 Graduate Studio (9)
 - FA 733 Graduate Thesis and Exhibition (8)
 - FA 734 Oral Defense (2)
 - Electives in Art (5)
 - Art History (6)
 - Cognate courses (6) chosen in consultation with the adviser; maximum of six credit hours transferable.
- Total (60)
(Cognate and elective hours may be grouped to form a minor with prior approval of the adviser.)

Master of Arts (Art Education)

M.A. degree designed for those currently teaching; teaching certificate required.

- FA 504 Elementary Studio (2)
(Required for elementary art teachers; open to other teachers.)
- FA 505 Two-D Studio (4)
- FA 507 Crafts Studio (4)
- FA 694 Seminar in Art Education (2)
- Fine Arts Courses (12-14)
Each candidate will plan with program adviser a specific graduate level art education activity. This culminating experience will be required of each candidate for the M.A. in Art Education.
- Cognate Courses (6)
Selected from art and/or other areas in consultation with the adviser.
- Total (30)

Master of Arts (Studio)

- Course Requirements (30)
- Fine Arts courses (24)
Minimum of 14 hours in an area of concentration (major).
Minimum of 10 hours outside major area (may be grouped to form a minor with adviser's approval).
- Cognate courses (6)
Selected from art and/or other areas in consultation with the adviser. Must include FA 428 Seminar in Modern Art for graduate credit. (A written thesis is optional; two hours credit given with adviser's approval.)
- Total (30)

COMPLETION OF THE DEGREE

The student should follow closely the Graduate School requirements for "Application for Diploma."

If the degree program includes a final exhibition of work, it is necessary to apply for gallery space one semester prior to the proposed exhibition.

Further information about these programs may be obtained from the Art Department.

ART COURSES

FA 501 Art Education. Two sem hours (Formerly Art Education Workshop)

This course is primarily designed for the classroom teacher. A variety of media, applicable to classroom utilization, will

be employed with an emphasis in innovative selections such as filmmaking, batik, weaving and other three dimensional activities. Special problems and independent research may be arranged within the format of the class. *Not open to students who have a major in art.*

FA 504 Elementary Art Studio. Two sem hours

Elective course specifically designed for candidates for the Master of Arts degree who are interested in elementary art. Project-oriented. New materials stressed. The problems will be tailored to individual student's needs and related to public school teaching. *Art majors only.*

FA 505, 506 Two-D Studio. Four sem hours each (Formerly Two-D Media Workshop)

Required course in two dimensional art work for candidates for the Master of Arts degree. Project-oriented. New media and materials stressed. The problems will be tailored to the individual student's needs and related to public school teaching. *Art majors only.*

FA 507, 508 Crafts Studio. Four sem hours each (Formerly Crafts Workshop).

Crafts studio will afford the student an opportunity to explore a variety of media in the crafts. The problems will be tailored to the individual student's needs and related to public school teaching. *Art majors only.*

FA 510 Ceramics. Two sem hours

Studio course in ceramics. *Art majors only.*

FA 520 Drawing. Two sem hours

Advanced studio course in drawing. *Art majors only.*

FA 530 Art History. Two sem hours

Advanced course in art history. *Art majors only.*

FA 540 Jewelry. Two sem hours

Advanced studio course in jewelry. *Art majors only.*

FA 550 Printmaking. Two sem hours

Advanced studio course in graphics. *Art majors only.*

FA 555 Textiles. Two sem hours
Advanced studio course in textiles. *Art majors only.*

FA 560 Watercolor. Two sem hours
Advanced studio course in watercolor. *Art majors only.*

FA 570 Sculpture. Two sem hours
Advanced studio course in sculpture. *Art majors only.*

FA 580 Painting. Two sem hours
Advanced studio course in oil painting. *Art majors only.*

FA 590, 591, 592 Special Topics. One, two and three sem hours
Prereq: Departmental permission.

FA 595 Workshop in Art. Two sem hours
A workshop in art history focusing on personal observation of the visual arts of a particular area.
Prereq: Departmental permission.

FA 596 Workshop in Art. Three sem hours (Formerly FA 595)
A workshop in art studio and/or art history focusing on personal observation of the visual arts of a particular area.
Prereq: Departmental permission.

FA 610, 611, 612 Ceramics. One, two and three sem hours
Advanced studio courses in ceramics. Based on background and need of the student. *Open only to graduate majors.*

FA 620, 621, 622 Drawing. One, two and three sem hours
Advanced studio courses in drawing. Based on background and need of the student. *Open only to graduate majors.*

FA 630 Graduate Studio. Nine sem hours
The first of the four graduate studio courses leading to the M.F.A. degree. Course is conducted on a one-to-one basis. Instructor is selected for the student for this first course upon his acceptance into the program by the Graduate Acceptance Committee.
Prereq: Acceptance into the M.F.A. program.

FA 631 Graduate Studio. Nine sem hours
The second of the four graduate studio courses leading to the M.F.A. degree.

Instructor to be selected by the student from the M.F.A. faculty. *Open only to M.F.A. candidates.*
Prereq: FA 630 Graduate Studio.

FA 640, 641, 642 Jewelry. One, two and three sem hours
Advanced studio courses in jewelry. Based on background and need of the student. *Open only to graduate majors.*

FA 650, 651, 652 Printmaking. One, two and three sem hours
Advanced studio courses in graphics. Based on background and need of the student. *Open only to graduate majors.*

FA 655, 656, 657 Textiles. One, two and three sem hours
Advanced studio courses in textiles. Based on background and need of students. *Open only to graduate majors.*

FA 660, 661, 662 Watercolor. One, two and three sem hours
Advanced studio courses in watercolor. Based on background and need of the student. *Open only to graduate majors.*

FA 665, 666, 667, 668 Painting. One, two, three and four sem hours (Formerly FA 680, 681, 682)
Advanced studio courses in oil painting. Based on background and need of the student. *Open only to graduate majors.*

FA 670, 671, 672 Sculpture. One, two and three sem hours
Advanced studio courses in sculpture. Based on background and need of the student. *Open only to graduate majors.*

FA 679, 680, 681 Special Topics. One, two and three sem hours
Prereq: Departmental permission.

FA 694 Seminar in Art Education. Two sem hours (Formerly FA 596)
Art education seminar will be concerned with the literature and research in art education.
Prereq: Graduate art majors only.

FA 695, 696 Seminar in Contemporary Ideas. Three sem hours each (Formerly FA 634, 635)
A two semester seminar sequence for all Master of Fine Arts degree candidates dealing with in-depth questions and

problems in 20th-century art. Discussions will be supplemented with slides, films and the presentation of papers. *Limited to M.F.A. students only.*
Prereq: Departmental permission.

FA 697, 698, 699 Independent Studies. One, two and three sem hours (Formerly FA 597, 598, 599)
Prereq: Departmental permission.

FA 732 Graduate Studio. Nine sem hours (Formerly FA 632)
The third of the four graduate studio courses leading to the M.F.A. degree. Instructor to be selected by the student from the M.F.A. faculty. *Open only to M.F.A. candidates.*
Prereq: FA 631 Graduate Studio.

FA 733 Graduate Thesis and Exhibition. Eight sem hours (Formerly FA 633)
A culmination of the three sequential graduate studio courses. The ideas developed in these courses result in a body of work which comprises the graduate exhibition. A written thesis is optional. An oral defense of the ideas presented in the exhibition is required. The University reserves the right to retain work from the graduate exhibition to be added to the EMU collection. A set of 35 mm. slides of all the works in the exhibition will be taken by the M.F.A. candidate and will become part of the Art Department files. *Open only to M.F.A. candidates.*
Prereq: FA 732 Graduate Studio.

FA 734 Oral Defense. Two sem hours
A course conducted by the adviser in each area of concentration. Individual conferences, reading assignments and slides increase understanding of the art context of the candidate's work. *Must be taken concurrently with FA 733 Graduate Thesis and Exhibition.*

OTHER COURSES

These upper division undergraduate courses may also be taken for graduate credit and applied on the department's degree program. No more than nine (9) hours of undergraduate coursework are permitted in the earning of any graduate degree. See the Undergraduate catalog for course descriptions.

- FA 406 Printmaking (3)
- FA 408 Ceramics (3)
- FA 409 Advanced Photographic
Imagery (3)
- FA 410 Metal Casting Techniques (3)
- FA 412 Sculpture (3)
- FA 413 Painting (3)
- FA 414 Painting-Watercolor II (3)
- FA 419 Life Drawing (3)
- FA 421 History of Oriental Art (3)
- FA 422 Chinese and Japanese Art
History (3)
- FA 423 Painting-Watercolor III (3)
- FA 424 Painting-Watercolor IV (3)
- FA 426 Medieval Art History (3)
- FA 427 Baroque Art (3)
- FA 428 Seminar Modern Art (2)
- FA 429 History of American
Architecture (3)
- FA 431 Multi-Media Workshop (3)
- FA 432 Drawing III (3)
- FA 433 Color Theory (3)
- FA 436 Women in Art (3)
- FA 441 Studies in Clays and Glazes (3)
- FA 443 Jewelry (3)
- FA 479 Special Topics (3)
- FA 480 Painting (3)
- FA 487 Cooperative Education (3)

TENTATIVE SCHEDULE

Course	Winter	Spring	Summer	Fall
FA 504	X			
FA 505			X	X
FA 507		X		X
FA 630	X			X
FA 631	X			X
FA 694				X
FA 695	X			
FA 696	X			
FA 732	X			X
FA 733	X			X

BIOLOGY

Herbert H. Caswell, Jr.
Department Head
316 Mark Jefferson
487-4242

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316-B Mark Jefferson
487-0441

DEGREE PROGRAMS OFFERED

The Biology Department offers a Master of Science degree program with concentrations in general biology, ecosystem biology (aquatic and terrestrial), physiology, and community college biology teaching.

Graduate assistantships are usually available. All applicants for admission to the biology Master of Science program are encouraged to apply for an assistantship. The department believes that the experience in teaching and research gained as a graduate assistant is a valuable part of the graduate program in biology for those whom we can accommodate in these positions.

Not offered by the Biology Department but including some work in biology is the Master of Science in general science administered by the Physics Department (see page 102).

ADMISSION REQUIREMENTS

All concentrations on the biology master's program share the same general admission requirements:

1. Bachelor's degree.
2. A minimum of 20 semester hours in biology (normally 30 hours) to include coursework in genetics and physiology with at least seven hours each in botany and zoology.
3. One year of college chemistry.
4. An academic record of "B" (3.0) or better during the junior and senior years.
5. Meet Graduate School degree admission requirements.
6. Submit to the Biology Department a completed departmental admission form and two recommendations.

Students deficient in one or more of the above admission requirements may be granted conditional admission subject to removing deficiencies while beginning a graduate program. Hours earned in deficiency courses may not

apply toward degree requirements. Special admission requirements in some areas of concentration are included under the objectives of that area of concentration.

DEGREE PROGRAM DESCRIPTION

The Master of Science in biology program is designed to provide all students with a broad background of knowledge, scientific skills and attitudes. At the same time, the Department of Biology recognizes an obligation to provide for the needs of different career orientations and different student objectives in taking our graduate program. To accommodate such diverse needs as research experience, internships and specialized coursework, each student is required, by the end of the first semester after admission to the degree program, to develop a personalized program of studies in consultation with the student's own faculty Guidance Committee.

A minimum of 30 credit hours of graduate work is required on this program. The program must specify at least 24 hours of coursework in the Biology Department and five or six hours of cognate credits to be taken outside the department. Courses on the program must be so distributed as to ensure that the combined undergraduate and graduate experiences of the student will include a minimum of 12 hours in biology, 10 hours in zoology and 10 hours in botany. Microbiology courses may be substituted for some of the botany hours in meeting this requirement. At least two credit hours in independent study courses, including a written report, and at least two credit hours in biology department seminar courses are required on all programs. The program has to be approved by the Guidance Committee and be filed with the graduate coordinator of the Biology Department. Requests for changes to the approved program must be submitted to the graduate coordinator with the written approval of the student's Guidance Committee.

Two alternative plans are available for completion of Graduate Requirements: Plan A, with thesis, or Plan B which requires a culminating experience specifically described below in lieu of a thesis.

Plan A: In addition to the requirements common to both plans, as described above, candidates must successfully complete an original investigation with approval of, and supervision by, their Guidance Committee. They must submit a report on this research, written in a manner suitable for publication and approved in detail by their Guidance Committee, and must successfully defend this thesis in an oral final examination. A maximum of four credit hours may be earned for thesis research.

The Guidance Committee for Plan A students will include three faculty members of the Biology Department. The chairperson is usually selected by the student. The other two members are then chosen by the chairperson in consultation with the student. Additional members may be added from inside or outside the department by agreement between the chairperson and the student.

Plan B: In addition to the requirements common to both plans, candidates in the concentrations in general biology and physiology must successfully complete three hours of credit in either a practicum (BIO 686, BIO 687, BIO 688) or in courses in biological research techniques or instrumentation, and three credit hours in BIO 697, BIO 698, or BIO 699, independent studies. Using the skill gained in these courses, they must prepare a written report on the results of their findings in independent studies. This report must be approved by their Guidance Committee and be presented orally in an approved biology seminar setting.

Candidates in the community college biology teaching concentration must successfully complete an internship at a community college (BIO 689).

Candidates in the ecosystem biology concentration must complete a total of three hours of credit in practicum in ecosystem biology (BIO 686, BIO 687, BIO 688) and a total of three hours of credit in BIO 697, BIO 698, BIO 699, independent studies, at least one hour of which must be taken in direct association with the three hours of practicum courses. They must satisfactorily complete the required written report in each of these courses and report orally on their own contribution to the practicum research program in an approved biology seminar setting. With the ap-

proval and supervision of their Guidance Committee, three hours of research participation in a cooperative education course may be substituted for the three hours of practicum research.

The Guidance Committee for all Plan B students will consist of the principal graduate adviser for the selected area of concentration, who, in consultation with the student, will prepare the student's program, and the graduate coordinator, who must also sign and approve the program. The student will have the option of selecting a third member for the Guidance Committee from the graduate faculty.

Initial advising: Students, at the time of their admission to the biology program, will be given temporary advising by the principal adviser in their selected area of concentration, or in the general biology concentration if they do not specify otherwise, and the Plan B advisory committee. Courses approved for the first semester by this temporary committee must be accepted as part of the student's program by the permanent Guidance Committee. Beyond the first semester, the temporary approval is not binding on the Guidance Committee. Students are responsible for forming a permanent committee and developing a permanent program approved by that committee before registering for their second semester.

AREAS OF CONCENTRATION, OBJECTIVES AND GRADUATION REQUIREMENTS

GENERAL BIOLOGY:

This program is designed to provide the additional background in biology appropriate for secondary teachers, for students entering a variety of doctoral programs in biology, and for those wishing further training in microbiology.

Graduation Requirements: See Degree Program Description above. In addition to the general requirements, the combined undergraduate and graduate coursework must include: genetics, physiology, ecology or limnology and one taxonomic field course. Principal Adviser: *Dr. Najati S. Ghosheh*.

COMMUNITY COLLEGE BIOLOGY TEACHING:

This program is designed to prepare students specifically for the professional teaching of biology at the community college level.

Graduation Requirements: In addition to the general requirements, the undergraduate and graduate coursework must include general biology, botany, zoology, plant anatomy, comparative anatomy, botany field course, zoology field course, biometry, limnology, ecology, invertebrate zoology or morphology of algae and fungi, general, cell, plant or vertebrate physiology, embryology, microbiology or morphology of vascular plants, internship (in place of Independent Study program), orientation seminar (in place of Seminar I and II). (Cognate: EDL 613 Philosophy and Purposes of the Community College.) Principal adviser: *Professor Frank L. Sinclair*.

ECOSYSTEM BIOLOGY: (Aquatic and Terrestrial)

The graduate program in ecosystem biology is designed to prepare research personnel, capable of contributing to the understanding and solution of environmental problems, for careers with government agencies or private companies concerned with the protection or management of either, or both, of aquatic and terrestrial ecosystems. Emphasis is placed on the development of taxonomic expertise, field and laboratory methods, and skill in organizing and analyzing data. As an integral part of the program, students will gain experience in the quantitative assessment of alternative environmental decisions within the ecosystem framework, and in presenting written and oral reports. Students may choose to emphasize either aquatic or terrestrial ecosystems in their individual programs.

Graduation Requirements: In addition to the general requirements, the combined undergraduate and graduate coursework must include general biology, botany, zoology, physiology, general ecology, biometry, genetics, three taxonomic field courses (one botanical and one zoological, the third in either botany or zoology), and at least three courses from among limnology, stream ecology, wetland ecosystems, terrestrial ecosystems, and

systems ecology. The two required seminars must be in ecosystem biology. Plan A students must take two hours of independent studies plus four hours of thesis research. Plan B students only, must include three hours of practicum in ecosystem biology plus three hours of independent study, at least one hour of which must accompany the practicum. The concentration requires a minimum of 32 semester hours, 26 in the Biology Department and at least six hours of cognates. BIO 314 Energy Analysis and Environmental Decision Making must be taken as a deficiency (no credit on the master's program) if it has not been taken as an undergraduate. Students who do not have credit for a course in general ecology as an undergraduate must complete a 36 semester hour program, including BIO 524 General Ecology. Principal adviser: *Dr. Dale C. Wallace*.

PHYSIOLOGY:

This program is designed to prepare students for technical, teaching, clinical or research careers in physiology. Individually prepared programs of study are designed to provide, in conjunction with the undergraduate background, a balance of physiological concepts and analytical methods at both the cellular and organismal levels as demonstrated in at least two of the following areas: vertebrate physiology, invertebrate physiology, plant physiology, and microbial physiology.

Additional admission requirement: one year of college physics.

Graduation Requirements: In addition to the general requirements, combined undergraduate and graduate coursework must include: one year physics; general biology; botany; zoology; general or cell physiology; two of the following: vertebrate physiology, plant physiology, microbial physiology, invertebrate physiology (others approved by physiology adviser). Total must include a minimum of 12 hours of 500 and 600 level physiology courses. Principal adviser: *Dr. Merlyn C. Minick*.

FACILITIES

The Biology Department shares the Mark Jefferson Science Building with the Departments of Chemistry and Psychology. This building provides modern teaching laboratories and

classrooms and such specialized facilities as an electron microscopy and photomicrography suite, controlled environment chambers, a walk-in cold room, aquarium rooms, animal rooms, photographic darkrooms, space for work in radiation biology, a radio frequency screened area, herbarium and teaching museums with plant and animal collections, including the G.W. Prescott algal collection and a vertebrate skull collection. A greenhouse and the Loesell Field Laboratory complete the on-campus resources of the department. The adjacent Huron River, and nearby state game and recreation areas as well as the Kresge Environmental Education Center at Lapeer, Michigan, are also available for field work. Vans and boats are available for class and research use.

COURSES FOR THE BIOLOGY DEGREE PROGRAM

Intended primarily for students on the biology degree program, these courses usually presuppose the equivalent of an undergraduate major or minor in some field of biology.

BIOLOGY COURSES

BIO 508 Evolution, Fact and Theory. Two sem hours

Evidence bearing on the origin and evolution of life and the processes involved is critically examined in this lecture and discussion course. Original term paper on an aspect of recent advances in evolutionary theory required. *Not open to students who have credit in BIO 405 Organic Evolution.*
Prereq: Background in biology, anthropology, geology or biochemistry and departmental permission.

BIO 509 Biometry. Three sem hours

A general course designed to study statistical methodology and the practical application of such statistics in biology.
Prereq: A course in college algebra, 15 hours in biology.

BIO 510 Light and Electron Microscopy, Theory and Applications. One sem hour

A lecture/demonstration course covering principles and methodologies of light and electron microscopy.
Prereq: Twenty semester hours of biology.

BIO 512 Biological Photography. One sem hour

A laboratory course on the fundamentals of micro- and macro-photography of biological specimens; includes image exposure, development and printing.
Prereq: BIO 415 Basic Histological Techniques, BIO 510 Light and Electron Microscopy, Theory and Applications, or departmental permission.

BIO 516 Advanced Histological Techniques. One sem hour

A laboratory, lecture and demonstration techniques mini-course giving practice and theory in animal tissue slide preparation for clinical/research purposes such as fluorescence microscopy, phase/contrast microscopy, histochemical staining, cryostat sectioning, and metallic impregnation staining.
Prereq: BIO 415 Basic Histological Techniques.

BIO 518 History of Biology. Two sem hours

Development of major concepts in biology from the Greek natural philosophers to the present.
Prereq: At least two courses in biology.

BIO 522 (410) Limnology. Three sem hours

A lecture, laboratory and field course dealing with physicochemical and biological interrelationships in standing waters.
Prereq: BIO 420 (524) General Ecology and one taxonomic field course or departmental permission.

BIO 524 (420) General Ecology. Four sem hours

A field and laboratory course introducing the concepts involved in the study of terrestrial and aquatic communities, their physical environment and their integration into ecosystems. Emphasis will be on properties at the ecosystem, community and population levels. An individual student problem will be required.
Prereq: BOT 221 General Botany, ZOO 222 General Zoology and one taxonomic field course or departmental permission.

BIO 525 Conservation. Two sem hours
A survey of the natural resources of Michigan; its land, water, minerals, forests, grasslands, wildlife and human

powers. Some of the current problems in conservation peculiar to Michigan on the basis of its history, its present resource utilization and its future possibilities. *Not open to students with credit in BIO 224 Principle of Conservation.*

BIO 526 Immunobiology. Three sem hours

Cellular and molecular responses to immunogens; primary and peripheral immune organs; T-cells and B-cells in cell-mediated and humoral immunity, immune regulation and mechanisms; hypersensitivity; immunity against microbial infectious agents; antigen-antibody reactions in vitro used in research and diagnostics.
Prereq: MIC 329 General Microbiology, BIO 301 Genetics; biochemistry desirable.

BIO 527 Immunobiological Methods. One sem hour

An individualized laboratory course on antibody production with available antigens; immuno-diffusional and immuno-electrophoretic analysis of antigens and their components with available sera; immuno biological research projects of student's choice. *Must be taken concurrently with BIO 526 Immunobiology.*
Prereq: MIC 329 General Microbiology, BIO 301 Genetics; biochemistry desirable.

BIO 528 (428) Tropical Ecology. Three sem hours

Important biotic communities of the tropics. Investigation in both marine and terrestrial environments; lectures, laboratory and field work. Field course. *Offered only on demand and when appropriate arrangements can be made for visiting tropical laboratories and/or field stations.*
Prereq: Botany, zoology, some concept of ecological principles and some familiarity with use of taxonomic keys.

BIO 529 Water Pollution Biology. Three sem hours

A study of the physiological and ecological consequences of water pollution as bases for defining water quality criteria and setting water quality standards.
Prereq: A taxonomic field course or departmental permission.

BIO 533 (433) Stream Ecology. Three sem hours

A field biology course which includes the study of physiochemical and biological aspects of stream ecosystems. Includes a study of laboratory and field methods.

Prereq: BIO 420 (524) General Ecology, a taxonomic field course or departmental permission.

BIO 534 Systems Ecology. Three sem hours

The study of whole ecosystems including modeling and simulation methods and a survey of ecological models.

Prereq: BIO 420 (524) General Ecology, MTH 104 Intermediate Algebra or one and one-half to two years high school algebra, Computer Programming (CSC 137 Introduction to Computer Programming or CSC 237 Computer Programming and Numeric Methods or ORI 215 Introduction to Business Information Systems).

BIO 535 (435) Wetland Ecosystems. Three sem hours

Advanced field ecology course in the theory and methods of study of Wetland Ecosystems.

Prereq: BIO 420 (524) General Ecology, and one taxonomic field course, or departmental permission.

BIO 536 (436) Terrestrial Ecosystems. Three sem hours

Advanced field ecology course in the theory and methods of study of the structure and dynamics of terrestrial ecosystems.

Prereq: BIO 420 (524) General Ecology, and one taxonomic field course, or departmental permission.

BIO 540 Cell Biology. Three sem hours

A lecture course covering the structure and function of the nuclear and cytoplasmic components of the cell.

Prereq: Twenty hours of biology including: BOT 221 General Botany, ZOO 222 General Zoology, CHM 270 Organic Chemistry and a course in physiology.

BIO 587 Cooperative Education in Biology. Three sem hours

Four or six months of full-time employment at an industrial firm or laboratory specially chosen for imparting a practical educational experience in biology

or technology. The program consists of work experience alternated with full-time attendance at the University.

Admittance to program by application only. Offered on Credit/No Credit basis.

Prereq: Departmental approval on graduate program.

BIO 590, 591, 592 Special Topics in Biology. One, two and three sem hours (Formerly BIO 537, 538, 539)

An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times as long as different topics are studied. *Not more than six hours of special topics may be used on a degree program.*

Prereq: Departmental approval.

BIO 594, 595, 596 Workshop in Biology, One, two and three sem hours (Formerly BIO 593, 594, 595)

BIO 610 Cytogenetics. Four sem hours

The structure and behavior of cells with emphasis on their nuclear components. Implications for genetics and evolution; some opportunity in the laboratory for individual investigation and for demonstration of techniques in cytological study.

Prereq: Fifteen hours of biology, including at least one course in genetics.

BIO 621 Electron Microscopy Laboratory. Three sem hours

A specialized course in techniques of electron microscopy including preparation of various tissues, use of electron microscope and its application to the study of biological problems. Darkroom technique is also covered. Potential can-

didates for electron microscopy should sign up and interview with the instructor early in the preceding semester. *Recitation required.*

Prereq: Twenty hours of biology and departmental permission.

BIO 679, 680, 681 Special Topics in Advanced Biology. One, two and three sem hours

BIO 682, 683, 684 Workshop in Advanced Biology. One, two and three sem hours (Formerly BIO 695)

BIO 686, 687, 688 Practicum in Biology. One, two and three sem hours (Formerly BIO 590, 591, 592)

Practical experience in a particular field study, with each student responsible for the experimental design and the collection, analysis and interpretation of field data for a specific area within a broader problem under group investigation. *Prereq: Departmental permission, based on appropriate qualification.*

BIO 689 Internship in Community College Biology Teaching. Six sem hours (Formerly BIO 697)

An intensive internship experience consisting of supervised participation in teaching biology at the community college level. The intern will participate in all department and professional activities at a community college and will conduct specific courses. *Prereq: Departmental permission.*

BIO 690, 691, 692 Thesis. One, two and three sem hours
Offered on Credit/No Credit basis.
Prereq: Departmental permission.

BIO 693 Seminar in Biology. One sem hour (Formerly BIO 596)
Presentation of special reports and group discussions of selected topics. *Offered on a Credit/No Credit basis.*
Prereq: Twenty hours of credit in biology, including botany and zoology and departmental permission.

BIO 696 Seminar in Biology; Laboratory Instruction. One sem hour
Analysis and discussion of the special problems of laboratory instruction in biology in college.
Offered on Credit/No Credit basis.

Prereq: Appointment to a graduate assistantship.

BIO 697, 698, 699 Independent Studies. One, two and three sem hours (Formerly BIO 597, 598, 599)

An intensive study of a problem or group of problems under the direction of a University faculty member. *Prereq: Departmental permission.*

BOTANY COURSES

BOT 530 Plant Products in Industry. Two sem hours

The various ways in which plants and plant products are utilized in modern industry; plants and the source of technical raw materials; the dependence of man upon the plant kingdom. *Not open to students who have credit in BOT 215 Economic Botany.*

BOT 543 Plant Pathology. Three sem hours

A study of plant diseases caused by fungi, bacteria, viruses, nematodes, phanerogams and environmental stress, with emphasis on the biology of the causal organisms, principles of pathogenesis, practical techniques of applied plant pathology and disease control. *Prereq: BOT 442 Plant Physiology desirable.*

BOT 550 (302) Systematic Botany. Three sem hours

A lecture, laboratory and field course addressing the principles of plant systematics and taxonomy and techniques of obtaining and analyzing data used in systematics. Major plant groups will be studied by collection, preservation and identification of specimens. *Counts as a taxonomic field course.*
Prereq: BOT 221 General Botany.

BOT 551 (451) Freshwater Algae. Three sem hours

A survey of the freshwater algae divisions; their morphology, taxonomy, ecology and economic importances. Lectures will emphasize an evolutionary approach. Laboratory work will stress the identification of representative algal taxa. A class field study will be required. *Counts as a taxonomic field course.*
Prereq: BOT 221 General Botany or equivalent.

BOT 552 (450) Aquatic Tracheophyta. Three sem hours

Identification in the laboratory and field of herbaceous and shrubby vascular plants growing in aquatic habitats and in both vegetative and reproductive phases. *Counts as a taxonomic field course.*
Prereq: BOT 221 General Botany or equivalent.

BOT 553 (453) Taxonomy and Ecology of Diatoms. Three sem hours

A taxonomic field course on the collection, preservation and identification of freshwater diatoms, includes familiarity with the more significant world literature. Collection required. *Counts as a taxonomic field course.*
Prereq: BOT 451/551 Freshwater Algae or departmental permission.

BOT 554 (354) Trees and Shrubs. Three sem hours

A taxonomic field course on identification of native trees and shrubs in winter and spring condition. *Counts as a taxonomic field course.*
Prereq: BOT 221 General Botany or BIO 205 Field Biology.

BOT 590, 591, 592 Special Topics in Botany. One, two and three sem hours (Formerly BOT 537, 538, 539)

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. *Not more than six hours of special topics may be used on a degree program.*
Prereq: Departmental permission.

BOT 594, 595, 596 Workshop in Botany. One, two and three sem hours (Formerly BOT 593, 594, 595)

BOT 640 Plant Cell Physiology. Two sem hours

Selected topics on recent advances in molecular botany.
Prereq: BOT 221 General Botany, laboratory physiology (general, cell, plant or animal) and organic chemistry.

BOT 679, 680, 681 Special Topics in Advanced Botany. One, two and three sem hours

BOT 693 Seminar in Botany. One sem hour (Formerly BOT 596)

Presentation of special reports and group discussions on selected topics. Offered on Credit/No Credit basis. Prereq: Twenty hours of credit in biology, including botany and zoology.

BOT 697, 698, 699 Independent Studies. One, two and three sem hours (Formerly BOT 597, 598, 599)

An intensive study of a problem or group of problems under the direction of a University faculty member. Prereq: Departmental permission.

MICROBIOLOGY COURSES

MIC 555 Determinative Microbiology. Four sem hours

A lecture and laboratory course on the biochemical characteristics, isolation and growth of selected groups of microorganisms. Identification characterization, numerical taxonomy techniques and independent laboratory work will be emphasized.

Prereq: MIC 444 Microbial Physiology, a biochemistry course and fifteen hours of biology.

MIC 587 Cooperative Education in Microbiology. Three sem hours

Four or six months of full-time employment at an industrial firm or laboratory specially chosen for imparting a practical educational experience in microbiology or technology. The program consists of work experience alternated with full-time attendance at the University.

Admittance to program by application only. Offered on Credit/No Credit basis.

Prereq: Departmental approval on graduate program.

MIC 620 General Virology. Three sem hours (Formerly BOT 620)

Molecular virology dealing with biophysical, biochemical and biological properties of viruses; cultivation in vitro for vaccine production; infection cycles; molecular patterns of replication; and control mechanisms.

Prereq: Fifteen hours of credit in biology including microbiology and biochemistry.

MIC 693 Seminar in Microbiology. One sem hour

Presentation of special reports and

group discussions of selected topics. Offered on a Credit/No Credit basis. Prereq: Twenty hours of biology, including botany and zoology.

ZOOLOGY COURSES

ZOO 536 Vertebrate Tissues: Structure and Function. Three sem hours

Vertebrate tissue structure and function are examined in a lecture, discussion, laboratory course. An original term paper is required. To be offered once a year.

Prereq: Twenty semester hours of biology including ZOO 222 General Zoology.

ZOO 548 Functional Biology of the Invertebrates. Three sem hours

A lecture/laboratory discussion course to contrast various invertebrate functional approaches to common environmentally posed problems of survival. This will include participation in a discussion group, a team research project and report, and a term paper.

Prereq: Graduate standing. At least twenty semester hours college biology including ZOO 222 General Zoology and BIO 320 Cell Physiology (ZOO 430 Invertebrate Zoology recommended but not required).

ZOO 570 (300) Natural History of Invertebrates. Three sem hours

A field course in the recognition, collection, identification and preservation of common invertebrates of Michigan, exclusive of the insects; natural history, ecology and economic importance.

Counts as a taxonomic field course. Prereq: ZOO 222 General Zoology.

ZOO 571 (310) Natural History of Vertebrates. Three sem hours

Vertebrates, their adaptations and natural history; the taxonomic classification, identification and distribution of local and other forms. Field work, sometimes under adverse weather conditions and at night; accurate original data on local species. Counts as a taxonomic field course. Prereq: ZOO 222 General Zoology.

ZOO 572 (422) Ichthyology. Three sem hours

A study of some aspects of the biology, classification, distribution and evolution of fishes. Attention is given to the morphology, physiology, behavior, natural history and ecology of fishes through

work in lecture, laboratory and in the field. Specific experience in the identification of the freshwater fishes of the Great Lakes region is provided in addition to a general survey of some marine fish families. Counts as a taxonomic field course.

Prereq: ZOO 222 General Zoology.

ZOO 574 (474) Herpetology. Three sem hours

Amphibian/reptilian biology: taxonomy, evolution, adaptations, anatomy, behavior, ecology, zoogeography. Field trips: some nocturnal, rainy, and two Saturdays. Dissections: salamander, lizard. Study living/preserved representatives: extant families and American species. Field or library research project required. Counts as a taxonomic field course.

Prereq: ZOO 222 General Zoology and one of the following: BIO 420 Ecology, ZOO 310 Natural History of Vertebrates or ZOO 324 Comparative Anatomy of Vertebrates.

ZOO 575 (425) Ornithology. Three sem hours

Bird biology for the secondary teacher and for students with an advanced interest in biology; field identification and census methods of summer and fall bird populations, behavior and ecology. A survey in the laboratory of major North American bird families. A student field project is required. Counts as a taxonomic field course.

Prereq: ZOO 222 General Zoology or departmental permission.

ZOO 580 Advanced Field Ornithology. Two sem hours

Field study and identification of all migratory birds and the spring migration as a biological phenomenon. Counts as a taxonomic field course.

Prereq: ZOO 575 (425) Ornithology, or some experience in field identification of birds and departmental permission.

ZOO 582 (482) Aquatic Entomology. Three sem hours

Aquatic insect families and some common genera; ecology, including adaptations to the aquatic environment, life histories and taxonomy. A collection of the common insect families of this area is required. Counts as a taxonomic field course.

Prereq: ZOO 585 (421) Entomology recommended.

ZOO 584 (480) Protozoology. Three sem hours

Survey of the protozoa, both free living and parasitic; their life cycles, morphology and ecology. Techniques of collecting, culturing and preserving protozoans and their identification. *Counts as a taxonomic field course.*
Prereq: ZOO 222 General Zoology.

ZOO 585 (421) Entomology. Three sem hours

A survey of the world of insects, their structure, function, behavior and ecology; identification and classification of local insects. *A field project is required. Counts as a taxonomic field course.*
Prereq: ZOO 222 General Zoology.

ZOO 586 (485) Mammalogy. Three sem hours

Some aspects of the biology of mammals; origin and evolution; anatomy; classification; adaptations and zoogeography. Natural history and ecology are studied in the field, including behavior 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: ZOO 222 General Zoology and

ZOO 310 (571) Natural History of Vertebrates or BIO 420 (524) General Ecology or ZOO 324 Comparative Anatomy of Vertebrates.

ZOO 590, 591, 592 Special Topics in Zoology. One, two and three sem hours (Formerly ZOO 537, 538, 539)

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. *Not more than six hours of special topics may be used on a degree program.*
Prereq: Departmental permission.

ZOO 594, 595, 596 Workshop in Zoology. One, two and three sem hours (Formerly ZOO 593, 594, 595)

ZOO 670 Animal Behavior. Two sem hours

The behavior of both vertebrates and invertebrates; instinct, learning, sociality, communication and breeding behavior, with emphasis on the ontogenic and adaptive significance of behavior patterns.
Prereq: Two courses in zoology.

ZOO 671 Comparative Vertebrate Physiology. Four sem hours

A study of physiological and biochemical control systems which are utilized to maintain endogenous homeostasis in a series of vertebrate animals. *Lab required.*
Prereq: Organic chemistry, vertebrate physiology, or departmental permission.

ZOO 672 Endocrinology. Four sem hours

A biological and non-clinical survey of the invertebrate and vertebrate endocrine systems; the histology and function of each of the major endocrine organs, their specific hormones and integrative mechanisms. *Lab required.*
Prereq: Organic chemistry and vertebrate physiology, or departmental permission.

ZOO 673 Animal Cell Physiology. Two sem hours

A lecture course on animal cell physiology. A study of the physiochemical relationships which are responsible for the properties of cell irritability, conductivity, metabolism, respiration, excretion, growth and reproductions. Lab course is available but not required.
Prereq: ZOO 222 General Zoology, laboratory physiology (general, cell, plant or animal) and organic chemistry. Chemistry, biochemistry, elementary physics desirable.

ZOO 674 Animal Cell Physiology Laboratory. One sem hour

A lab course on animal cell physiology. Laboratory study of the physiochemical relationships which are responsible for the properties of cell irritability, conductivity, contractility, metabolism, respiration, excretion, growth and reproduction.
Prereq or coreq: ZOO 673 Animal Cell Physiology.

ZOO 679, 680, 681 Special Topics in Advanced Zoology, One, two and three sem hours

ZOO 693 Seminar in Zoology. One sem hour (Formerly ZOO 596)

Presentation of special reports and group discussions on selected topics. *Offered on Credit/No Credit basis.*
Prereq: Twenty semester hours in biology, including botany and zoology.

ZOO 697, 698, 699 Independent Studies. One, two and three sem hours (Formerly ZOO 597, 598, 599)

An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: Departmental permission.

COURSES FOR NON-SPECIALIZING STUDENTS

The following courses are made available for graduate students who have had little or no previous training in biology or, more specifically, have not had equivalent courses as undergraduates. These courses may be applicable as cognates for other departments within the University. Unless also listed in the preceding section, they are *not open to students with an undergraduate major in biology and cannot be applied to the graduate degree program in biology.* Since most require no prerequisites, they are especially suited to the general student who would like to become better informed about biology, either for general interest or for better preparation for science teaching in the elementary grades.

BOT 500 Survey of the Plant Kingdom. Two sem hours

The major types of plants from algae to seed plants; emphasis on development of structure. *Not open to students who have credit in BIO 205 Field Biology or BOT 221 General Botany.*

ZOO 501 Survey of the Animal Kingdom. Two sem hours

A survey of the major animal groups from protozoans to mammals. Structure function; the basis for classification and the evolutionary relationships of the several groups. *Not open to students who hold credit in BIO 205 Field Biology or ZOO 222 General Zoology.*

BIO 502 Biology of Man. Two sem hours

Man as a living organism in the world of living organisms, emphasizing his place among, the relationships with, the other organisms of the world; the morphological, physiological, taxonomic and ecological relationships of man. Lectures and laboratory experience.

BOT 503 Plants and Nature. Two sem hours

Plants in their natural environment; identification and classification of local flowering plants, use of hand-lens and plant manuals and methods of collection and preservation. Major plant groups and their climatic and geographic significance.

ZOO 504 Field Zoology. Two sem hours

Animals in their natural habitats; identification, behavior and environmental relations. Field study and observations in woods, fields, ponds and streams; collecting and displaying living and preserved material.

BIO 513 Principles of Heredity. Two sem hours

The basic principles of heredity with emphasis on inheritance in man. *Not open to students who hold credit in BIO 301 Genetics.*
Prereq: A recent course in introductory biology, or BIO 502 Biology of Man.

BIO 525 Conservation. Two sem hours

A survey of the natural resources of Michigan; its land, water, minerals, forests, grasslands, wildlife and human powers. Some of the current problems in conservation peculiar to Michigan on the basis of its history, its present resource utilization, and its future possibilities. *Not open to students who hold credit in BIO 224 Principles of Conservation.*

BOT 530 Plant Products in Industry. Two sem hours

The various ways in which plants and plant products are utilized in modern industry; plants as the source of technical raw materials; the dependence of man upon the plant kingdom. *Not open to students who hold credit in BOT 215 Economics Botany.*

COURSES DESIGNED FOR TEACHERS

ESC 505 Science in the Elementary School. Two sem hours

A survey of subject matter and process skills utilizing current science texts and courses of study; readings in current literature; the construction and use of science materials; and supply and equip-

ment needs for elementary science.
No credit ESC 302 Elementary School Science last five years.

BIO 506 Methods in Teaching Biology. Two sem hours

Salient techniques and methodology in presenting biological principles; text analysis, test construction, course content, planning and equipping a modern high school biology laboratory.
Not open to students who hold credit in BIO 403 Methods and Materials for Teaching Biology.

BOT 507 Experimental Plant Physiology for Teachers. Two sem hours

Lecture and laboratory course concentrating on selected experimental physiological studies of seed plants. *Offered during the summer session only. Not open to students who have had plant physiology.*
Prereq: Fifteen hours in biology.

BIO 521 Outdoor Science and Land Laboratories. Four sem hours

Using the outdoors effectively in instruction; recognition of instructional resources on school sites and other land laboratories. Basic ecological factors affecting associations of organisms; correlations between physical and social sciences. Field trips.

ESC 590, 591, 592 Special Topics in Science Education. One, two and three sem hours

An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times as long as different topics are studied. *Not more than six hours of special topics may be used on a degree program.*
Prereq: Departmental permission.

ESC 594, 595, 596 Workshop in Elementary Science Teaching. One, two and three sem hours

ESC 693, 694 Seminar in Science Education. One and two sem hours.

Offered on Credit/No Credit basis.

OTHER COURSES

These upper division undergraduate courses may also be taken for graduate credit. A maximum of nine credit hours in 400-level courses may be applied on the department's degree program. See the Undergraduate Catalog for course descriptions.

Biology

- BIO 403** Methods and Materials for Teaching Biology (2)
BIO 407 Advanced Hematology (3)
BIO 412 Biogeography (2)
BIO 413 Animal and Plant Preservation Techniques (1)
BIO 415 Basic Histological Techniques (1)
BIO 416 Biological Instrumentation-Theory and Practice (1)
BIO 427 Introductory Molecular Genetics (3)
BIO 434 Advanced Immunohematology (3)
BIO 461 Oncology (3)
BIO 480 Radiation Biology (3)

Botany

- BOT 404** Mycology (3)
BOT 412 Plant Anatomy (3)
BOT 430 Plant Morphology of Algae and Fungi (4)
BOT 431 Plant Morphology of Mosses through the Vascular Plants (4)
BOT 442 Plant Physiology (3)
BOT 446 Medical Mycology (4)
BOT 487 Cooperative Education in Botany (3)

Microbiology

- MIC 432** Clinical Microbiology (3)
MIC 442 Microbial Ecology (3)
MIC 444 Microbial Physiology (3)
MIC 445 Food Microbiology (3)
MIC 454 Molecular Biology of Bacteria and Viruses (3)

Zoology

- ZOO 417** Neuroanatomy (3)
ZOO 427 Vertebrate Physiology (3)
ZOO 430 Invertebrate Zoology (4)
ZOO 462 Parasitology (3)
ZOO 487 Cooperative Education in Zoology (3)

TENTATIVE SCHEDULE

Course	Winter	Spring	Summer	Fall
BIO 502				Y
BIO 506	X		X	
BIO 508	Y			
BIO 509	X			
BIO 510	Y			Y
BIO 512	Y			Y
BIO 513	Y		Y	
BIO 516				X
BIO 518		Y		
BIO 521		Y	Y	
BIO 522	X	Y	Y	Y
BIO 524	X	Y	Y	X
BIO 525	X			
BIO 526			Y	Y
BIO 528		irregular		
BIO 533			Y	Y
BIO 534	X			
BIO 535		X		X
BIO 536			Y	Y
BIO 540	X			
BIO 587	X	X	X	X
BIO 610	Y			
BIO 621	X			
BOT 500	Y			
BOT 503		Y	Y	Y
BOT 507			Y	
BOT 530	Y			Y
BOT 543	X			
BOT 550		Y		Y
BOT 551		Y	Y	X
BOT 552			Y	Y
BOT 553	Y			
BOT 554	X			
BOT 620		Y		X
BOT 640	Y	Y		
ESC 505	X			X
MIC 555	X			
MIC 587	X	X	X	X
ZOO 501				Y
ZOO 504		Y	Y	
ZOO 536				X
ZOO 548	X			
ZOO 570	X		Y	
ZOO 571	X			
ZOO 572		Y	Y	X
ZOO 575			Y	X
ZOO 580		Y		
ZOO 582		Y		Y
ZOO 584	Y		Y	
ZOO 585			Y	Y
ZOO 586	Y			
ZOO 670	Y			
ZOO 671	Y			Y
ZOO 672	X	Y		Y
ZOO 673		Y	Y	
ZOO 674		Y	Y	

Y Courses offered on a two (2) year cycle.

CHEMISTRY

O. Bertrand Ramsay
Department Head
225 Mark Jefferson
487-0106

Edward L. Compere, Jr.
Coordinator of Advising
212 Mark Jefferson
487-2027

MASTER OF SCIENCE IN CHEMISTRY

The purpose of this program is to provide advanced study of chemistry leading to the Master of Science degree for individuals (a) who are currently employed in chemistry-related industrial or governmental positions, or (b) who desire professional training before going into the job market or on to a doctoral program.

Admission Requirements:

1. An undergraduate degree with either a major or a strong minor (approximately 25 semester hours) in chemistry.
2. Credit in advanced undergraduate courses corresponding to CHM 371-3 (Organic), 461-3 (Physical) and 481 (Instrumental Analysis), along with either CHM 432 (Advanced Inorganic) or 451-2 (Biochemistry). Competency in any deficient areas may be established by examination. The graduate coordinator will use the results of these examinations to ascertain advanced standing or the need for remedial work. If deficiencies exist for which competency is not established by examination, a maximum of four semester hours of graduate credit will be allowed for courses taken to correct these deficiencies.
3. One year of college physics (PHY 223, 224) and calculus through differential equations and linear algebra.
4. An undergraduate record that meets the requirements specified by the Graduate School.
5. Submission of scores from the Graduate Record Examination (should include the Verbal, Quantitative and Advanced Chemistry test portions).

Degree Requirements:

A. Thesis Plan:

1. Course Credit Requirement: satisfactory completion of a minimum of thirty (30) semester hours of graduate credit.
2. Course Distribution Requirements and Options:
 - a. Core Course Requirements: any three of the following courses: CHM 561, CHM 571, CHM 632, CHM 641, CHM 655.
 - b. Chemical Literature Proficiency

Requirement: CHM 610.

- c. Seminar Requirement: CHM 693 and attendance at departmental seminars.
- d. Cognate Courses: zero to six credit hours in courses taken outside of the Chemistry Department. These courses must be approved by the graduate coordinator.
- e. Research Requirement: six credit hours from CHM 697, CHM 698, CHM 699 and satisfactory completion of a thesis representing a

significant contribution of original research in chemistry. In addition to the written thesis, a formal oral presentation of the research is required either before the chemistry faculty or at a professional meeting.

- f. Additional courses to complete the required 30 semester hours of graduate credit from 500-600 level chemistry courses (but excluding 503, 520, 679, 692) or from the following 400 level chemistry courses: CHM 410 Scientific Glassworking, CHM 411 Toxicology I, CHM 412 Toxicology II, CHM 433 Inorganic-Organic Synthesis Laboratory, CHM 477, 478, 479 Special Topics, CHM 485 Radioisotope Techniques in Chemistry and Biology, CHM 487 Cooperative Education in Chemistry.
- g. Of the 30 semester hours required, no more than nine hours of 400 level courses may be used on the degree. No credit below the 400 level is allowed.

B. Non-Thesis Plan: intended for the part-time student whose professional experience constitutes a reasonable substitute (as determined by the graduate coordinator) for the laboratory research and written thesis requirements of the thesis plan. The requirements are the same as those of the thesis plan except that in place of the research requirement (A.2.e.) substitute: 10 credit hours of chemistry courses at the 500-600 level (but excluding 520).

CHEMISTRY COURSES

CHM 510 Computer Applications in Chemistry. Two sem hours

A course in computer programming designed for advanced undergraduates and graduate students. The emphasis is on the application of computer-based numerical methods to the solution of complex chemical problems.
Prereq: Senior or graduate standing in chemistry; no prior background in computer programming is necessary.

CHM 515 Industrial and Environmental Chemistry. Three sem hours

A three-part course covering selected aspects of industrial organic chemistry,

industrial inorganic chemistry, and environmental chemistry. Environmental problems most closely associated with the production aspects of industrial chemistry will be discussed.

Prereq: One year of organic chemistry; one course in inorganic chemistry; one course in physical chemistry.

CHM 520 Introductory Chemistry. Three sem hours

A course designed for teachers in the elementary school. Special emphasis is given to topics that may not be included in the first course in chemistry but which are of general concern to the public. Representative topics include air and water pollution, energy considerations and an introduction to organic and biochemistry. *No credit toward M.S. in chemistry degree. Not open to junior/senior high school science majors.*
Prereq: One course in general college chemistry.

CHM 553 Enzymology. Two sem hours

A lecture course covering the nomenclature, kinetics, mechanism and regulation of enzymes.

Prereq: CHM 451 Biochemistry I.

CHM 555 Biochemistry. Two sem hours (Formerly Biopolymers)

Discussion of the biochemistry of the nervous system covering the synthesis, distribution, mechanism of function, and degradation of compounds involved in neural function (including neurotransmitters, neurohormones, brain sphingolipids, steroids, and prostaglandins). Mental diseases with a known biochemical basis and the rationale for drug therapy are described.

Prereq: CHM 452 Biochemistry II.

CHM 561 Quantum Chemistry and Spectroscopy. Two sem hours (Formerly Advanced Physical Chemistry)

A study of atomic and molecular structure and spectroscopy based on quantum chemistry.

Prereq: One year of physical chemistry, two years of calculus, one year of calculus-based physics.

CHM 562 Statistical Mechanics and Chemical Kinetics. Two sem hours

Introduction to the principles of statistical mechanics, the connection

between the microscopic world and classical thermodynamics, and modern theories of chemical reaction rates.

Prereq: CHM 462 Physical Chemistry II, MTH 325 Differential Equations and Vector Analysis, PHY 224 Electricity and Light.

CHM 565 Nuclear Chemistry. Three sem hours

The course will cover topics such as radioactive decay, decay systematics, nuclear models and nuclear reactions. Applications of radioactivity to chemical problems will be discussed. Techniques of nuclear chemistry, nuclear processes as chemical probes and other such topics will be covered. A discussion of the preparation and properties of transplutonium elements will be included.

Prereq: One year of college chemistry; one course in physical chemistry or modern physics.

CHM 571 Advanced Organic Chemistry. Three sem hours

A lecture course devoted to developing a deeper understanding of the structure of organic compounds and the mechanism of organic reactions. The structural aspects of bonding, stereochemistry, and conformation will be extended beyond the introductory level prior to considering mechanistic studies on several fundamental reaction types.

Prereq: One year of organic chemistry.

CHM 572 Spectrometric Organic Structure Determination. Three sem hours. (Formerly Stereochemistry of Organic Compounds)

The use of infra-red, Raman, ultra-violet, mass and nuclear magnetic resonance spectroscopy in organic structure determination will be discussed. Emphasizes problem-solving and practical applications.

Prereq: CHM 372 Organic Chemistry II.

CHM 573 Qualitative Organic Chemistry Laboratory. Two sem hours

Organic reactions and instrumental measurements—especially IR, NMR, and mass spectra—will be used to systematically identify organic compounds. Microtechniques are emphasized. Laboratory: six hours per week.
Prereq: CHM 373 Organic Chemistry

Laboratory.

Coreq: CHM 572 Spectrometric Organic Structure Determination.

CHM 574 Advanced Organic Chemistry Topics. Two sem hours

Two or three advanced topics are treated in depth. The topics selected will vary from offering to offering and could include such examples as: stereochemistry and conformational analysis, natural product chemistry, heterocyclic compounds, orbital symmetry rule and applications, and photochemistry.

Prereq: CHM 372 Organic Chemistry II.

CHM 575 High Polymer Chemistry. Three sem hours.

Macromolecules and the reactions that produce synthetic plastics, elastomers, resins and fiber, as well as physical methods of evaluation and characterization of polymers, and the relation of polymer structure to physical properties will be discussed.

Prereq: CHM 372 Organic Chemistry II, CHM 373 Organic Chemistry Laboratory, CHM 461 Physical Chemistry I or permission of the department.

CHM 590, 591, 592 Special Topics in Chemistry. One, two and three sem hours (Formerly CHM 594)

An in-depth study of a specialized area of chemistry. Not offered on a regular basis.

Prereq: Graduate standing or departmental permission.

CHM 610 Information Retrieval in Chemistry. One sem hour

A course designed primarily to provide M.S. candidates with a proficiency in locating chemical information by independent study. Exercises are relevant to research and involve both manual and computerized information retrieval.

Prereq: Graduate standing.

CHM 632 Structural Inorganic Chemistry. Three sem hours (Formerly CHM 532)

Physical and chemical methods for determining structures of inorganic substances and the relationship between structure and descriptive chemistry will be discussed.

Prereq: One year of physical chemistry and one course in advanced inorganic chemistry.

CHM 641 Analytical Chemistry. Three sem hours (Formerly CHM 581)

A course stressing modern methods of analysis, with special emphasis on trace determinations. Optical, X-ray, separation and nuclear methods are examined in detail.

Prereq: CHM 481 Instrumental Analysis and one year of physical chemistry.

CHM 655 Advanced Biochemistry Topics. Two sem hours

Specialized areas of biochemistry are discussed in depth, with an emphasis on recent research developments.

Prereq: CHM 452 Biochemistry II.

CHM 693 Seminar in Chemistry. One sem hour (Formerly CHM 596)

Discussion of specific topics in chemistry by graduate students. Emphasis will be placed on the improvement of oral communication techniques for presentation of scientific material.

Prereq: Departmental permission.

CHM 697, 698, 699. Research in Chemistry. One, two and three sem hours (Formerly CHM 597, 598, 599)

The student performs original research under faculty direction. Repeat enrollment is allowed. Thesis is submitted after completion of six hours of research in chemistry.

Prereq: Departmental permission.

SCHEDULING PATTERNS FOR M.S. IN CHEMISTRY COURSES

Course	Winter	Spring	Summer	Fall
CHM 510	O			
CHM 515				E
CHM 553				E
CHM 555		X		
CHM 561				O
CHM 565	E			
CHM 571				E
CHM 572				O
CHM 573				O
CHM 574	O			
CHM 575	O			
CHM 610				X
CHM 632	E			
CHM 641	O			
CHM 655	E			
CHM 693	X			
CHM 697	X	X	X	X
CHM 698	X	X	X	X
CHM 699	X	X	X	X

E, O courses offered on a two year cycle in even/odd numbered years. X courses offered annually.

X courses offered annually.

COMMUNICA- TION AND THEATRE ARTS

Dennis M. Beagen
Department Head
136 Quirk
487-3131

Virginia Koste
Coordinator of Advising
Drama/Theatre for the Young
104 Quirk
487-0031

Parker Zellers
Coordinator of Advising
Communication and Theatre Arts
102 Quirk
487-1152

The Department of Communication and Theatre Arts provides the following programs of graduate study leading to the degrees of Master of Fine Arts in drama/theatre for the young, Master of Arts in communication, Master of Arts in theatre, and Master of Arts in drama/theatre for the young.

OBJECTIVES

1. Advancing students toward mastery of their creative areas of specialization within communication and theatre arts.
2. Providing students with the opportunity to acquire and apply the tools essential to research in communication and theatre arts.
3. Preparing students for careers and further study in communication and theatre arts.

REQUIREMENTS FOR ADMISSION

Applicant must be admitted to the Graduate School.

Master of Fine Arts

1. Applicant must have a minimum overall undergraduate GPA of 2.75, or 3.0 in the last half of the undergraduate program *if* the bachelor's degree was earned before 1975; a GPA of 3.0 is required *if* the

bachelor's degree is more recent than 1975. Exceptions to this requirement can be made if at least 15 semester hours of graduate work have already been earned with a GPA of 3.0 or higher.

2. Applicant's undergraduate studies, considered along with relevant extra-academic experiences, must provide an appropriate foundation for the special graduate focus of his/her choice.
3. An interview with at least one faculty member in the program is normally a part of the admission process, along with letters of recommendation and samples of the student's previous work.

4. Applicant must be accepted into the departmental program by the Graduate Committee of Communication and Theatre Arts.

Master of Arts

1. Minimum of a minor or the equivalent in communication, theatre arts, or drama/theatre for the young.
2. Minimum GPA of 2.5 overall or 2.75 in last half on a 4.0 scale.
3. Acceptance into the departmental program by the Graduate Committee of the Department of Communication and Theatre Arts.

COURSE OF STUDY

Master of Fine Arts

1. A minimum of 60 credit hours (semester system) of approved course work (including internship and thesis or project) beyond the bachelor's degree *or* a minimum of 30 credit hours beyond an appropriate master's degree must be satisfactorily completed.
2. This department-based program is built around required core courses, supplemented by elective and cognate courses, to achieve a concentration in developmental drama and theatre for and with the young.

Required Courses (27-28 hours)

- CTA 429 History & Theory of Developmental Drama/Theatre (3)
- CTA 501 Creative Drama & Role Playing (2)
- CTA 504 Oral Interpretation of Literature & Language with the Young (2)
- CTA 522 TIE: Theatre-In-Education (2)
- CTA 565 Studies in Drama/Theatre for the Young (2)
- CTA 606 Colloquium in Communication & Theatre Arts (1)
- CTA 608 Colloquium in Communication & Theatre Arts (3)
- CTA 627 The Playwright & the Young Audience (3)
- CTA 657 Advanced Improvisation (3)
- CTA 658 Theatre for Children (3)
- CTA 684 Workshops in Communication & Theatre Arts (3)
- or*
- CTA 685 Workshops in Communication & Theatre Arts (4)

Required Research Courses (Eight hours)

- CTA 677 Research Techniques in Communication & Theatre Arts (2)
- CTA 690 Examination (1)
- CTA 691, 692 Thesis (2-3)
- or*
- CTA 691, 692 Project (2-3)

Elective courses within the department and appropriate courses in other departments can be selected with the consent of the adviser.
(14-15 hours)

Internship (10 hours)

CTA 686, 687, 688, 689 (1-,2-,3-,4)

3. A program of study must be prepared in consultation with assigned graduate adviser early in students' graduate work.

Master of Arts

1. The completion of a minimum of 30 hours of approved course work beyond the bachelor's degree.
2. The selection of a program in one of the following: (1) communication, (2) theatre arts, or (3) drama/theatre for the young. For a detailed description of each concentration, consult the department head or the coordinator of advising.
3. Training in research approaches and resources in communication and theatre arts; possible interdepartmental cognate; possible intradepartmental cognate in communication, theatre arts, telecommunications and film, oral interpretation, drama/theatre for the young, or speech science and pedagogy.
4. Preparation of a program of study in consultation with assigned graduate adviser. To be prepared at outset of student's graduate work.

AVAILABLE CONCENTRATIONS

Master of Arts in Communication (Oral Interpretation)

Within the graduate study of communication, a student may select a concentration in oral interpretation. This is an advanced concentration of specialized study for students interested in restoring to literature the voices and bodies originally equated with literature. It combines skills related to literary study, aesthetic awareness, philosophical analysis, psychological insight, communication theory and performance.

Master of Arts in Communication (Public Address)

Within the graduate study of theatre arts, a student may select a concentration in arts administration. This is an advanced concentration of the specialized study for students seeking careers in management of commercial, non-profit, community or educational theatre arts organizations.

Master of Arts in Theatre Arts (Administration)

Within the graduate study of theatre arts, a student may select a concentration in arts administration. This is an advanced concentration of the specialized study for students seeking careers in management of commercial, non-profit, community or educational theatre arts organizations.

The program is designed as a continuation of previous study in arts administration, business or theatre. (Basic business classes at the undergraduate level required for entrance to this program.)

GRADUATION REQUIREMENTS

Master of Fine Arts

1. Student must have an official program of study on file in the Graduate School.
2. Student must have successfully met all conditions stipulated upon entry into the program.
3. Student must have successfully completed a minimum of 60 hours of approved course work as identified in his/her program of study.
4. Student must have achieved an overall GPA of at least 3.0 (B).
5. Student must have successfully completed CTA 677 Research Techniques in Communication and Theatre Arts.
6. Student must achieve:
 - a. the successful completion of a qualifying examination covering the core curriculum, the chosen concentration, and relevant electives;
 - b. one of the following:
 - (1) the submission and defense of a thesis
 - or*
 - (2) the successful completion of a special theory-application project.
7. Student must have successfully completed the internship component (10 hours).

Each year a limited number of graduate assistantships are awarded by the department to students possessing excellent backgrounds in communication and/or theatre arts *AND* at least a 3.0 GPA in their undergraduate work. Such students assist with teaching of up to three sections of the department's fundamentals of speech course; or assist with the teaching of basic theatre arts or drama/theatre for the young courses;

or with supervising one of the co-curricular activities.

Master of Arts

1. Student must have an official program of study on file in the Graduate School.
2. Student must have successfully met all conditions stipulated upon entry into the program.
3. Student must have successfully completed a minimum of 30 hours of approved course work as identified in his or her program of study.
4. Student must have achieved a grade point average of at least 3.0 (B) overall.
5. Student must have successfully completed CTA 677 Research Techniques in Communication and Theatre Arts.
6. Student must achieve one of the following:
 1. the successful completion of a terminal qualifying examination covering the student's elected concentration and selected cognates;
 2. the submission and defense of a thesis;

or

3. the successful completion of a special theory application project. Each year a limited number of graduate assistantships are awarded by the department to students possessing excellent backgrounds in communication and/or theatre arts *AND* at least a 3.0 grade point average in their overall undergraduate work. Such students assist with teaching of up to three sections of the department's fundamentals of speech course, or assist with the teaching of basic theatre arts or drama/theatre for the young courses, or supervise one of the activities.

GENERAL COURSES

General courses in communication and theatre arts are courses which, in addition to being offered for credit toward an M.A. in communication and theatre arts, are offered for the benefit of graduate students specializing in departments other than communication and theatre arts who wish to take collateral or cognate work in the Department of Communication and Theatre Arts. Such students, however, are not restricted to these courses; they may take any other graduate courses in communication and theatre arts for which they have prerequisites.

COMMUNICATION COURSES

These were formerly SPH courses.

CTA 506 Persuasion in the Modern World. Two sem hours

Emphasis is placed on the uses and applications of persuasion in such areas as politics, business, religion and education.

CTA 508 Small Group Decision-Making. Two sem hours

The theory and practice of discussion and practice of communication in small group decision-making.

CTA 509 Communication for Leaders. Two sem hours

Theory and applications of communication in leadership roles. Deals with interviews, staff meetings, dyadic communication, communication in large and small organizations, and communication barriers with methods of evaluating and improving interpersonal, group and public communication.

CTA 574 Directing Secondary Forensic Activities. Two sem hours (Formerly SPH 596 Seminar in Directing High School Forensic Activities)

The philosophy, organization and administration of forensic programs for those who direct or plan to direct such activities on the secondary level.
Prereq: Departmental permission.

THEATRE ARTS COURSES

These were formerly SPH courses.

CTA 554 Directing High School Dramatic Activities. Two sem hours (Formerly SPH 596 Seminar in Directing High School Dramatic Activities)

The philosophy, organization and administration of dramatic programs for those who direct or plan to direct such activities on the high school level.
Prereq: Departmental permission.

CTA 555 Play Production— Junior-Senior High School. Two sem hours (Formerly SPH 503)

Principles and techniques of play production with emphasis on problems encountered in secondary schools. Dramatic structure, play selection,

directing, scene design and construction, stage lighting, make-up, costuming, properties and business management; improvement of effectiveness in both curricular and extracurricular theatre.
Prereq: Non-major/graduates. Recitation required.

DRAMA/THEATRE FOR THE YOUNG COURSES

These were formerly SPH courses.

CTA 501 Creative Drama and Role Playing. Two sem hours (Formerly Creative Drama)

An introduction to understanding the creative process, dramatic play, gaming, and involvement drama as developmental learning.

CTA 502 Introduction to Theatre for the Young. Two sem hours (Formerly Drama for Children)

An introductory consideration of the scope, purposes, forms and materials of theatre for the young.

CTA 504 Oral Interpretation of Literature and Language with the Young. Two sem hours.

Emphasis on the study of interpreting literature orally for and with the young, including developing competence and understanding in the adult and child in interpretive and improvised work emerging from literature and language.

CTA 522 TIE: Theatre-In-Education. Two sem hours

A study of the origin, principles and forms of TIE: Theatre-In-Education. Students will have opportunities to plan and evaluate TIE sessions.

CTA 523 Puppetry: Catalyst in Human Development. Two sem hours

Consideration of puppetry as a medium for learning and creative expression. Experience in constructing puppets for purposeful work with people. Examination of the applications of puppetry to many disciplines.

CTA 524 Developmental Drama/Theatre with Handicapped Persons. Two sem hours

Study of principles, theories and practices of developmental drama/theatre for handicapped persons. Application to educational, recreational, and institutional settings will be stressed.

**CTA 525 Developmental
Drama/Theatre in Recreational
Settings. Two sem hours**

An exploration of the theory and practice of developmental drama/theatre in various recreational settings, such as camps, parks, community centers, Girl Scouts, 4-H.

**CTA 528 Developmental
Drama/Theatre in Religion. Two
sem hours**

Consideration of and experience in uses of developmental drama/theatre for various settings and purposes.

**CTA 627 The Playwright and the
Young Audience. Three sem hours**

A study of dramatic literature for the young, from developmental as well as artistic viewpoints and in contexts of the main body of dramatic literature and children's literature, and the total educational experience of children and adolescents.

**CTA 686, 687, 688 Cooperative Educa-
tion in Communication and
Theatre Arts. One, two and three
sem hours**

One term of supervised educational work in communication and theatre arts. An evaluation is required at the end of each employment period. *Offered on a Credit/No Credit basis.*
Prereq: Twenty hours of credit in communication and theatre arts; approval by Cooperative Education Office and the department.

**TELECOMMUNICATIONS AND
FILM COURSES**

These were formerly SPH courses.

**CTA 534 Directing High School Broad-
casting, TV and Film Activities.
Two sem hours (Formerly SPH
596 Seminar in Directing High
School Broadcasting, TV and Film
Activities)**

The philosophy, organization and administration of broadcasting, television and film programs for those who direct or plan to direct such activities on the high school level.
Prereq: Departmental permission.

**CTA 537 Mass Communications.
Two sem hours**

A comparative study of the mass media

in the United States: their development, function and import. Special emphasis will be placed on the process and effects of mass communication with detailed study of radio and television.

**CTA 538 Television Techniques for the
Classroom Teachers I.
Two sem hours**

Skills and techniques needed by classroom teachers for the effective presentation of educational materials through the medium of television. Theory and practice.

**CTA 548 Television Techniques for
Classroom Teachers II. Two sem
hours**

A continuation and intensification of the theoretical and practical experience in instructional television provided in CTA 538 Television Techniques for Classroom Teachers I. Laboratory hours to be arranged.

SPECIALIZATION COURSES

Specialization courses in communication and theatre arts are courses specifically designed for students wishing credit toward the M.A. in communication and theatre arts. Such courses are open to other students, however, who have the necessary prerequisites.

COMMUNICATION COURSES

These were formerly SPH courses.

**CTA 570 Teaching of College Speech.
One sem hour (Formerly College
Teaching of Speech)**

Theory and practice of teaching speech at the college level. *Offered on a Credit/No Credit basis.*
Prereq: Departmental permission.

**CTA 576 Public Address. Three sem
hours**

Critical study of the significant speeches of leading speakers with reference to their dominant issues and their influence on social and political life.
Prereq: Fifteen hours of credit in communication.

**CTA 581 Rhetorical Theory to 1900.
Three sem hours**

A study of selected rhetorical theories from the classical age to 1900. The course is designed to facilitate

understanding of the transition from classical to modern rhetorical theory.
Prereq: Fifteen hours of credit in communication.

**CTA 582 Modern Rhetorical Theory.
Three sem hours**

A study of selected rhetorical theories from 1900 to the present with a view of discovering the methods and objectives of modern rhetoricians and relating them to society and its problems.
Prereq: Fifteen hours of credit in communication.

**CTA 584 Studies in Small Group Com-
munications. Three sem hours**

An examination of methods and research currently being conducted in discussion and small group studies.
Prereq: Fifteen hours of credit in communication.

**CTA 585 Theories of Argument and
Controversy. Three sem hours**

Theoretical foundations of argument and controversy and a review of related research.
Prereq: Fifteen hours of credit in communication and major/graduates.

**CTA 586 Theories of Persuasion.
Three sem hours**

A review of contemporary research and theory in persuasion.
Prereq: Fifteen hours of credit in communication and major/graduates.

**CTA 587 Speech Communication
Theory. Three sem hours**

A critical examination of fundamental processes and principles of communication behavior.
Prereq: Fifteen hours of credit in communication and major/graduates.

**CTA 588 Research in Speech Com-
munication. Three sem hours**

The examination of communication research methods with a major emphasis upon empirical research. Students will select and design a major research project.
Prereq: Fifteen hours of credit in communication and major/graduates.

**CTA 590, 591, 592 Special Topics in
Communication and Theatre Arts.
One, two and three sem hours
(Formerly SPH 539, 540, 541)**

Students will investigate a particular

topic which is approved by the Department of Communication and Theatre Arts.
Prereq: Graduate students and qualified seniors in communication and theatre arts.

CTA 606, 607, 608 Colloquium in Communication and Theatre Arts. One, two and three sem hours

Students will study a special topic area with resource persons from the community as well as members of the communication and theatre arts faculty. *Offered on a Credit/No Credit basis. Prereq: Graduate student in communication and theatre arts or a related field. Departmental permission required.*

CTA 677 Research Techniques in Communication and Theatre Arts. Two sem hours (Formerly SPH 592)

An introduction to the nature and value of research; the research problem; basic research tools; philosophical foundations of historical, descriptive and experimental research; professional writing. (Winter Semesters.)
Prereq: Fifteen hours of credit in communication and theatre arts and major/graduate.

CTA 679, 680, 681 Special Topics in Communication and Theatre Arts. One, two and three sem hours

Students will investigate a particular topic which is approved by the Department of Communication and Theatre Arts.
Prereq: Graduate student in communication and theatre arts. Departmental permission required.

CTA 682, 683, 684, 685 Workshops in Communication and Theatre Arts. One, two, three and four sem hours

Students will be provided practical and theoretical study in a selected topic area. *Offered on a Credit/No Credit basis. Prereq: Graduate student in communication and theatre arts or a related field. Departmental permission required.*

CTA 686, 687, 688 Cooperative Education in Communication and Theatre Arts. One, two and three sem hours

One term of supervised educational work in communication and theatre arts. An evaluation is required at the end of each employment period. *Offered on a Credit/No Credit basis. Prereq: Twenty hours of credit in communication and theatre arts; approval by Cooperative Education Office and the department.*

CTA 690 Degree Requirement: Examination. One sem hour

(Formerly SPH 689)

An examination over the student's field of study conducted by a departmental faculty committee from assigned readings. *Offered on a Credit/No Credit basis. Prereq: Graduate student in communication and theatre arts and departmental permission.*

CTA 690, 691, 692 Degree Requirement: Thesis. One, two and three sem hours

A research-oriented study conducted under the supervision of a departmental faculty committee. *Offered on a Credit/No Credit basis. Prereq: Graduate student in communication and theatre arts and departmental permission.*

CTA 690, 691, 692 Degree Requirement: Project. One, two and three sem hours

A theory-application project conducted under the supervision of a departmental faculty committee. *Offered on a Credit/No Credit basis. Prereq: Graduate student in communication and theatre arts and departmental permission.*

CTA 693, 694, 695 Seminar in Communication and Theatre Arts. One, two and three sem hours (Formerly SPH 696)

A research-oriented course for graduate majors in communication and theatre arts. *Prereq: Graduate student in communication and theatre arts and departmental permission.*

CTA 697, 698, 699 Independent Studies. One, two and three sem hours (Formerly SPH 597, 598, 599)

An intensive study of one or more problems under the direction of a University faculty member. *Prereq: Departmental permission.*

THEATRE ARTS COURSES

These were formerly SPH courses.

CTA 551 Theatre Planning. Two sem hours

A study of the steps and considerations appropriate to the design of theatre structures with emphasis on institutional

and community playhouses.
Prereq: Nine hours credit in theatre arts or permission of the department.

CTA 556 Experimental Staging Techniques for the Director. One sem hour

Exploration and practical application of non-traditional staging possibilities.

Prereq: One course in directing or departmental permission.

CTA 557 Audition Techniques for the Actor. One sem hours

Review of the literature and personalized preparation of materials and techniques equipping the actor to better confront tryouts and auditions for the commercial and non-commercial theatre.

Prereq: One course in acting or departmental permission.

CTA 558 Directing Styles. Two sem hours

The theory and practice of directing selected periods of drama, with emphasis on Greek, Elizabethan, Restoration, Modern and non-Western presentational forms.

Prereq: One course in directing or departmental permission.

CTA 559 Acting Styles. Two sem hours

The theory and practice of acting within selected periods of drama, with emphasis on Greek, Elizabethan, Restoration, Modern and non-Western presentational forms.

Prereq: One course in acting or departmental permission.

CTA 560 Ancient Dramatic Theory. Three sem hours

Study of the main theories regarding the nature and purpose of drama from ancient Greece to the end of the 17th century.

Prereq: CTA 450 History of the Theatre to 1642 and CTA 451 History of the Theatre: 1642 to the Present, or departmental permission.

CTA 561 Modern Dramatic Theory. Three sem hours

The main theories regarding the nature and purpose of drama from the beginning of the 18th century to the present.

Prereq: CTA 450 History of the Theatre to 1642 and CTA 451 History of the Theatre: 1642 to the Present, or departmental permission.

CTA 562 American Theatre History. Two sem hours

A tracing of the main currents in the history of the American Theatre from its beginnings in the middle 1700s to the present day.

Prereq: CTA 450 History of the Theatre to 1642 and CTA 451 History of the Theatre: 1642 to the Present, or departmental permission.

CTA 566 Studies in Theatre History. Two sem hours (Formerly Seminar in Theatre History).

This course will be concerned with a penetrating study of the theatrical activity and technology prevalent during a particular period in world history.

Prereq: CTA 450 History of the Theatre to 1642 and CTA 451 History of the Theatre: 1642 to the Present, or departmental permission.

CTA 567 Problems in Design and Technical Theatre. Two sem hours (Formerly Seminar in Design and Technical Theatre).

An intensive study of the organic theory of theatre production with emphasis on the contributions of Craig, Appia, Bakst, Reinhardt, Jones, Simonson and BelGeddes.

Prereq: CTA 351 Scene Design, CTA 362 Stage Lighting, CTA 450 History of the Theatre to 1642, and CTA 451 History of the Theatre: 1642 to the Present, or departmental permission.

CTA 568 Musical Theatre Performance Techniques. Two sem hours

The course is designed for knowledgeable actors who are beginning work with musical theatre literature. The emphasis is on workshop experience to develop techniques for performing songs.

Prereq: One course in directing or departmental permission.

CTA 569 Studies in Directing. Two sem hours

An in-depth study of the theories and practices of noted stage directors, past and present.

Prereq: One course in directing or permission of department.

CTA 590, 591, 592 Special Topics in Communication and Theatre Arts. One, two and three sem hours (Formerly SPH 539, 540, 541)

Students will investigate a particular topic which is approved by the Department of Communication and Theatre Arts.

Prereq: Graduate students and qualified seniors in communication and theatre arts.

CTA 606, 607, 608 Colloquium in Communication and Theatre Arts. One, two and three sem hours

Students will study a special topic area with resource persons from the community as well as members of the communication and theatre arts faculty. Offered on a Credit/No Credit basis. *Prereq: Graduate student in communication and theatre arts or a related field.*

CTA 651 Design. I Two sem hours

Intermediate consideration of the theoretical and mechanical factors governing the design of scenery for the stage.

Prereq: Six hours of credit in theatre arts.

CTA 660 Playwriting I. Two sem hours (Formerly SPH 655)

Intermediate study of the approaches to and the structural composition of dramatic writing.

Prereq: Six hours of credit in theatre arts.

CTA 661 Playwriting II. Two sem hours (Formerly SPH 656)

A continuation of CTA 361 Dramatic Writing.

Prereq: Graduate standing.

CTA 662 Lighting. Two sem hours (Formerly SPH 652)

A continuation of CTA 362 Stage Lighting.

Prereq: Graduate standing.

CTA 663 Costume I. Two sem hours (Formerly SPH 653)

Intermediate study of the approaches to and the historical sources for stage costuming.

Prereq: Six hours of credit in theatre arts.

CTA 682, 683, 684, 685 Workshops in Communication and Theatre Arts. One, two, three and four sem hours

Students will be provided practical and theoretical study in a selected area. *Offered on a Credit/No Credit basis.*
Prereq: Graduate student in communications and theatre arts or a related field.

CTA 686, 687, 688 Cooperative Education in Communication and Theatre Arts. One, two and three sem hours

One term of supervised educational work in communication and theatre arts. An evaluation is required at the end of each employment period. *Offered on a Credit/No Credit basis.*
Prereq: Twenty hours of credit in communication and theatre arts; approval by Cooperative Education Office and the department.

CTA 690 Degree Requirement: Examination. One sem hour (Formerly SPH 689)

An examination over the student's field of study conducted by a departmental faculty committee from assigned readings. *Offered on a Credit/No Credit basis.*
Prereq: Graduate student in communication and theatre arts and departmental permission.

CTA 690, 691, 692 Degree Requirement: Thesis. One, two and three sem hours

A research-oriented study conducted under the supervision of a departmental faculty committee. *Offered on a Credit/No Credit basis.*
Prereq: Graduate student in communication and theatre arts and departmental permission.

CTA 690, 691, 692 Degree Requirement: Project. One, two and three sem hours

A theory-application project conducted under the supervision of a departmental faculty committee. *Offered on a Credit/No Credit basis.*
Prereq: Graduate student in communication and theatre arts and departmental permission.

CTA 693, 694 695 Seminar in Communication and Theatre Arts. One, two and three sem hours

(Formerly SPH 696)

A research-oriented course for graduate majors in communication and theatre arts.

Prereq: Graduate major in communication and theatre arts and departmental permission.

CTA 697, 698, 699 Independent Studies. One, two and three sem hours (Formerly SPH 597, 598, 599)

An intensive study of one or more problems under the direction of a University faculty member.
Prereq: Departmental permission.

DRAMA/THEATRE FOR THE YOUNG COURSES

These were formerly SPH courses.

CTA 501 Creative Drama and Role Playing. Two sem hours (Formerly Creative Drama).

An introduction to understanding the creative process, dramatic play, gaming and involvement drama as developmental learning.

CTA 502 Introduction to Theatre for the Young. Two sem hours (Formerly Drama for Children).

An introductory consideration of the scope, purposes, forms and materials of theatre for the young.

CTA 504 Oral Literature and Language with the Young. Two sem hours

Emphasis on the study of interpreting literature orally for and with the young, including developing competence and understanding in the adult and child in interpretive and improvised work emerging from literature and language.

CTA 522 TIE: Theatre-In-Education. Two sem hours

A study of the origin, principles and forms of TIE: Theatre-In-Education. Students will have opportunities to plan and evaluate TIE sessions.

CTA 523 Puppetry: Catalyst in Human Development. Two sem hours

Consideration of puppetry as a medium for learning and creative expression. Experience in constructing puppets for purposeful work with people. Examination of the applications of puppetry to many disciplines.

CTA 664 Costume II. Two sem hours (Formerly SPH 654)

Problems of construction and design of period costumes for the stage with emphasis on practical application culminating in a final design and construction project.

Prereq: CTA 363 Stage Costume: History and Theory or CTA 663 Costume I, or departmental permission.

CTA 677 Research Techniques in Communication and Theatre Arts. Two sem hours (Formerly SPH 592)

An introduction to the nature and value of research; the research problem; basic research tools; philosophical foundations of historical, descriptive and experimental research; professional writing.

Prereq: Fifteen hours of credit in communication and theatre arts.

CTA 679, 680, 681 Special Topics in Communication and Theatre Arts. One, two and three sem hours

Students will investigate a particular topic which is approved by the Department of Communication and Theatre Arts.

Prereq: Graduate student in communication and theatre arts.

**CTA 524 Developmental Drama/
Theatre with Handicapped
Persons. Two sem hours**

Study of principles, theories and practices of developmental drama/theatre for handicapped persons. Application to educational, recreational and institutional settings will be stressed.

**CTA 525 Developmental Drama/
Theatre in Recreational Settings.
Two sem hours**

An exploration of the theory and practice of developmental drama/theatre in various recreational settings, such as camps, parks, community centers, Girl Scouts, 4-H.

**CTA 528 Developmental Drama/
Theatre in Religion. Two
sem hours**

Consideration of and experience in uses of developmental drama/theatre for various religious settings and purposes.

**CTA 565 Studies in Drama/Theatre for
the Young. Two sem hours
(Formerly Seminar in Dramatic
Arts for Children).**

Studies in the history, theory and techniques of drama and theatre for/with the young. Selection of focus is made by individual students in the group, according to their particular interests.

Prereq: CTA 323 Improvising and Role-Play or CTA 501 Creative Drama and Role Playing plus CTA 322 Theatre for Children or CTA 502 Introduction to Theatre for the Young.

**CTA 590, 591, 592 Special Topics in
Communication and Theatre Arts.
One, two and three sem hours
(Formerly SPH 539, 540, 541)**

Students will investigate a particular topic which is approved by the Department of Communication and Theatre Arts.

Prereq: Graduate student or qualified senior in communication and theatre arts.

**CTA 606, 607, 608 Colloquium in
Communication and Theatre Arts.
One, two and three sem hours**

Students will study a special topic area with resource persons from the community as well as members of the communication and theatre arts faculty. *Offered on a Credit/No Credit basis.*

Prereq: Graduate student in communication and theatre arts or a related field.

**CTA 627 The Playwright and the
Young Audience. Three sem hours**

A study of dramatic literature for the young, from developmental as well as artistic viewpoints and in contexts of the main body of dramatic literature and children's literature, and the total educational experience of children and adolescents.

**CTA 657 Advanced Improvisation.
Three sem hours**

A study of spontaneous dramatic play meant to develop deeper self-discipline and freedom and to extend resources for teaching, directing and acting.

Prereq: Graduate student in communication and theatre arts.

**CTA 658 Theatre for Children.
Three sem hours**

An extensive study of the nature and range of theatre experiences for children and adolescents.

Prereq: Graduate student in communication and theatre arts.

**CTA 677 Research Techniques in
Communication and Theatre Arts.
Two sem hours (Formerly SPH
592)**

An introduction to the nature and value of research; the research problem; basic research tools; philosophical foundations of historical, descriptive and experimental research; professional writing.

Prereq: Fifteen hours of credit in communication and theatre arts.

**CTA 679, 680, 681 Special Topics in
Communication and Theatre Arts.
One, two and three sem hours**

Students will investigate a particular topic which is approved by the Department of Communication and Theatre Arts.

Prereq: Graduate student in communication and theatre arts.

**CTA 682, 683, 684, 685 Workshops in
Communication and Theatre Arts.
One, two, three and four sem
hours**

Students will be provided practical and theoretical study in a selected area. *Offered on a Credit/No Credit basis.*

Prereq: Graduate student in communication and theatre arts or a related field. Departmental permission required.

**CTA 686, 687, 688, 689 Internship in
Drama/Theatre for the Young.
One, two, three and four sem
hours**

Supervised experience in an appropriate professional work situation where knowledge and skills are tested and evaluated. *Offered on a Credit/No Credit basis.*

Prereq: Advanced standing in MFA-Drama/Theatre for the Young program.

**CTA 690 Degree Requirement:
Examination. One sem hour
(Formerly SPH 689)**

An examination over the student's field of study conducted by a departmental faculty committee from assigned readings. *Offered on a Credit/No Credit basis.*

Prereq: Graduate student in communication and theatre arts and departmental permission.

**CTA 690, 691, 692 Degree Requirement:
Thesis. One, two and three sem
hours**

A research-oriented study conducted under the supervision of a departmental faculty committee. *Offered on a Credit/No Credit basis.*

Prereq: Graduate student in communication and theatre arts and departmental permission.

**CTA 690, 691, 692 Degree Requirement:
Project. One, two and three sem
hours**

A theory-application project conducted under the supervision of a departmental faculty committee. *Offered on a Credit/No Credit basis.*

Prereq: Graduate student in communication and theatre arts and departmental permission.

**CTA 693, 694, 695 Seminar in
Communication and Theatre Arts.
One, two and three sem hours
(Formerly SPH 696)**

A research-oriented course for graduate majors in communication and theatre arts.

Prereq: Graduate major in communication and theatre arts and departmental permission.

CTA 697, 698, 699 Independent Studies.
One, two and three sem hours
(Formerly SPH 597, 598, 599)

An intensive study of one or more problems under the direction of a University faculty member.

Prereq: Departmental permission.

OTHER COURSES FOR CREDIT TOWARD MASTER OF ARTS IN COMMUNICATION AND THEATRE ARTS

The following 400 level courses are also available to graduate students. No more than nine (9) hours of 400 level coursework is permitted in the earning of any graduate degree. For description of these courses, see the Undergraduate Catalog.

Communication

- CTA 440 Survey of Public Address (3)**
- CTA 460 Theory of Speech Criticism (3)**
- CTA 466 Forensic Contest Speaking (1)**
- CTA 475 Research in Speech Communication (3)**
- CTA 485 Theories of Speech Communication Behavior (3)**
- CTA 496 Seminar in Speech (2)**

Theatre Arts

- CTA 450 History of the Theatre to 1642 (3)**
- CTA 451 History of the Theatre: 1642 to the Present (3)**
- CTA 452 Arts Management (3)**
- CTA 456 Experimental Approaches to Directing (1)**
- CTA 457 Tryouts and Auditions (1)**
- CTA 458 Style for the Actor (3)**
- CTA 459 Style for the Director (3)**
- CTA 461 Musical Theatre Acting (2)**
- CTA 462 Directors on Directing (2)**
- CTA 467 Theatre Practice (1)**

Drama/Theatre for the Young

- CTA 429 History and Theory of Developmental Drama/Theatre (3)**
- CTA 468 Interpretation (1)**

Oral Interpretation

- CTA 410 Oral Interpretation of Shakespeare (3)**
- CTA 411 Advanced Problems in Interpretation (3)**
- CTA 412 Interpretation of Poetry (3)**
- CTA 414 Development and Theory of Oral Interpretation (3)**

Telecommunication and Film

- CTA 431 Advanced Radio Production and Direction (3)**
- CTA 432 Advanced Television Production and Direction (3)**
- CTA 445 Film Theory and Criticism (3)**
- CTA 446 Contemporary Problems in Telecommunications (3)**
- CTA 447 Radio-Television Station Management (3)**

Speech Improvement

- CTA 400 Phonetics and Dialects of Spoken English (3)**
- CTA 402 Voice Development (1)**
- CTA 404 Dynamic Speaking Skills (3)**
- CTA 405 Voice and Dialects (3)**

Special Topics

- CTA 477 Special Topics (1)**
- CTA 478 Special Topics (2)**
- CTA 479 Special Topics (3)**

Additional 400 level undergraduate courses are also available to graduate students under special circumstances. On this matter the student should have a clear understanding with the department and the Graduate School before expecting to use such courses toward a Master of Arts or a Master of Fine Arts in the Department of Communication and Theatre Arts.

COMPUTER SCIENCE

Andrew C. Dempster
Acting Department Head
620 Pray-Harrold
487-1444

William W. McMillan
Coordinator of Advising
620 Pray-Harrold
487-1444

The Department of Computer Science offers as cognates a variety of graduate courses for computer science professionals, prospective high school teachers of computer science and other graduate students. The purpose and the objectives of these course offerings are:

to serve the needs of able and qualified students intent on increasing their knowledge, abilities and stature in the field of computer science;

to provide an environment conducive to research in computer science;

to address the needs of teachers who pursue certification in computer science.

Students who satisfy the admission requirements of the Graduate School and who have fulfilled the specific course prerequisites are eligible to enroll in computer science courses.

COMPUTER SCIENCE COURSES

CSC 502 Programming in LISP. One sem hour

Introduction to the LISP language with emphasis on artificial intelligence applications. Pure LISP, built-in and user-defined functions, PROG feature, MAP-functionals, property lists.
Prereq: CSC 238 Topics in Computer Science with Graduate standing, or CSC 504 Fundamentals of Computer Science I, or departmental permission.

CSC 504 Fundamentals of Computer Science I. Four sem hours

An accelerated course covering the content of CSC 238 Topics in Computer Science and CSC 334 Data Structures. Includes structured

programming in Pascal, recursion, topics in data structures and an introduction to algorithm analysis. *No credit CSC 334 Data Structures or equivalent.*

Prereq: Graduate standing, CSC 137 Introduction to Computer Programming, CSC 237 Computer Programming and Numeric Methods or equivalent, MTH 120 Calculus I or MTH 119 Mathematical Analysis for Social Sciences II.

CSC 505 Fundamentals of Computer Science II. Four sem hours

An accelerated treatment of topics from CSC 239 Assembly and Machine Language Programming and CSC 338 Computer Organization. Machine language and arithmetic. Assembly language programming. Implementation of high level run time structures. Structure of assemblers, loaders and command interpreters. Logic design and computer architecture. *No credit CSC 239 Assembly and Machine Language Programming, CSC 338 Computer Organization or equivalent.*
Prereq: Graduate standing; CSC 504 Fundamentals of Computer Science I or departmental permission.

CSC 530 Formal Methods in Software Development. Three sem hours

Principles of logical reasoning and their application to the development of reliable software, propositional and predicate logic, mathematical induction, semantics of control and data structures. Examples drawn from various applications areas. Emphasis on the use of formal methods as practical tools which aid the software development process.

Prereq: CSC 334 Data Structures or CSC 504 Fundamentals of Computer Science I, MTH 121 Calculus II and MTH 122 Elementary Linear Algebra.

CSC 531 Automata, Computability and Formal Languages. Three sem hours

A survey of the principal mathematical models of computation and formal languages. Finite automata, regular languages and sets, the Chomsky hierarchy, context-free languages, computability and undecidable problems, computational complexity and NP-completeness.

Prereq: CSC 330 Discrete Mathematical

Structures and CSC 530 Formal Methods in Software Development.

CSC 532 Artificial Intelligence. Three sem hours

Introduces the student to basic concepts and techniques of artificial intelligence. Strategies for choosing representations, notational systems and structures; search strategies; control issues; examples of current systems in natural language processing, pattern recognition, problem solving, learning and information retrieval. *Students with no prior knowledge of LISP should take CSC 502 Programming in LISP concurrently.*

Prereq: CSC 334 Data Structures or CSC 504 Fundamentals of Computer Science I, CSC 337 Programming Languages.

CSC 533 Computer Communication Networks and Distributed Systems. Three sem hours

A study of networks of interacting computers. Principles of data communication, major national and international protocols. Models for network design and analysis. Local and long-haul networks. Distributed processing, distributed databases and network and distributed operating systems. A laboratory project involving a network of microcomputer systems.

Prereq: CSC 330 Discrete Mathematical Structures, CSC 433 Computer Operating Systems, MTH 121 Calculus II and MTH 122 Elementary Linear Algebra.

CSC 534 Database Management Systems Design. Three sem hours

File and data organization techniques. The hierarchical, network and relational data models with examples. Query facilities. Data normalization. Security and integrity. Design and implementation of a simple DBMS system.

Prereq: CSC 530 Formal Methods in Software Development and either CSC 338 Computer Organization or CSC 505 Fundamentals of Computer Science II.

CSC 538 Advanced Computer Organization. Three sem hours

Processor design-fixed and floating point arithmetic processing and non-arithmetic processing. Control design and microprogramming. Memory organization and input-output. System organization. Case studies will be drawn

from computer systems designed to make special types of processing more efficient. Stack computers, pipelined processors and vector computers, multiprocessing.

Prereq: CSC 431 Systems Programming or CSC 433 Computer Operating Systems.

CSC 539 Software Design and Development. Three sem hours

Software engineering techniques for the organization, management and development of a large software project. Specification, structured design, segmentation, documentation. A large scale team project.

Prereq: CSC 530 Formal Methods in Software Development.

CSC 546 Methods of Teaching Computer Science in the Secondary School. Three sem hours

This course considers computer science programs in the high school and presents information and materials needed to prepare students for the teaching of computer science in these schools. Topics will include organization and content, methods of teaching and learning, security and maintenance of equipment, professional journals and magazines available for future growth, copying software and the legality of software duplication dealing with diversity of abilities, problem solving skills and strategies for debugging programs. In addition, this course will make use of teaching experience and background of the returning student. Time will be spent "connecting" their talents to the computer science area.

Prereq: CSC 505 Fundamentals of Computer Science II or equivalent.

CSC 630 Advanced Compiler Construction. Three sem hours

An introduction to the major methods of compiler implementation. Lexical analysis, LL and LR parsing, semantic analysis and code generation, error detection and recovery, code optimization. Compiler engineering techniques including portability, validation and the use of automated compiler-writing tools. Course project will involve implementation of a compiler.

Prereq: CSC 430 Compiler Construction and CSC 531 Automata, Computability and Formal Languages.

CSC 633 Advanced Operating Systems. Three sem hours

Selected topics from areas such as concurrent processing, memory management, resource allocation and scheduling, multi-processing and multi-programming, protection, performance evaluation and modeling will be covered in depth.

Prereq: CSC 431 Systems Programming, CSC 433 Computer Operating Systems, CSC 530 Formal Methods in Software Development, MTH 370 Probability and Statistics I or MTH 571 Probability and Statistics.

CSC 635 Real Time Processing. Three sem hours

An introduction to the problems, concepts and techniques involved in computer systems that must interface with external devices: computer characteristics needed for real time use, operating system considerations, analog signal processing and conversion, inter-computer communication. Students will be involved in several laboratory projects involving a mini- or micro-computer system.

Prereq: CSC 433 Computer Operating Systems, CSC 530 Formal Methods in Software Development and MTH 325 Differential Equations and Vector Analysis or MTH 425 Mathematics for Scientists.

CSC 690, 691, 692 Thesis. One, two and three hours

Prereq: Departmental permission.

CSC 693 Seminar. One sem hour

OTHER COURSES FOR GRADUATE CREDIT

The following courses also may be elected for graduate credit; course descriptions may be found in the Undergraduate Catalog. No more than nine (9) hours of undergraduate coursework are permitted in the earning of any graduate degree. *Information about courses in computer science not listed here may be obtained from the coordinator of advising, Dr. William W. McMillan.*

- CSC 430 Compiler Construction (3)
- CSC 431 Systems Programming (3)
- CSC 433 Computer Operating Systems (3)
- CSC 435 Introduction to Microprocessors (3)
- CSC 438 Computer Graphics (3)
- CSC 478 Special Topics in Computer Science (3)

ECONOMICS

Young-Iob Chung
Department Head
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Coordinator of Advising
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The Department of Economics offers three Master of Arts degree programs; Master of Arts in economics, Master of Arts in applied economics and Master of Arts in development, trade and planning. These programs are designed to accommodate students with varied backgrounds and needs, and consequently admissions and degree requirements are different for each. The programs prepare students for careers in business, industry and government service. They also provide training for students who intend to pursue the study of economics at more advanced levels. They offer sufficient flexibility to meet the career objectives of students with various interests.

Together the three programs can accommodate students with undergraduate backgrounds in fields ranging from mathematics and engineering, to economics and business, to political science, public administration, and liberal arts.

GENERAL ADMISSION REQUIREMENTS

Admission to the program is available in three ways.

1. Degree Admission

Degree admission to the graduate programs is available to those meeting the following requirements:

- hold a bachelor's degree from an accredited college or university.
- have an undergraduate grade point average of at least 2.5 ("A" = 4.0).
- satisfy the undergraduate and/or course requirements for the specific program.

2. Conditional Admission

Conditional admission may be granted to those students not meeting the above standards but who show promise. Students who are admitted are required to maintain a

grade of "B." A maximum of 12 hours earned as a conditional admission may be applied toward M.A. degrees. Degree admission will be granted after overcoming the deficiencies existing at the time of the initial admission.

3. Special Student Status

Special student status is available for those not qualified for degree or conditional admission, or for those who wish to take courses for self-improvement and are not interested in obtaining a degree.

GENERAL DEGREE REQUIREMENTS

In addition to the general requirements established by the Graduate School, the student shall:

- Complete a minimum of thirty (30) hours of graduate credit in economics (up to six hours of cognates may be substituted upon approval).
- Demonstrate research ability by successfully completing either:
 - a master's thesis; or
 - the graduate research seminar (ECO 604) and one supervised research paper approved by departmental faculty.
- Satisfactorily complete the following:
 - ECO 601 Macroeconomic Analysis
 - ECO 602 Microeconomic Analysis

MASTER OF ARTS IN ECONOMICS

The Master of Arts in economics provides a basic understanding of theoretical foundations and tools of economic analysis so that students gain competence in economic theory and its uses. The program exposes students to a variety of areas of economic study and enables them to concentrate in a particular field through course work, independent study and research.

This program prepares students for positions in business, industry and government service. Many of our former students are now active in banking, insurance, investment, consulting, hospital administration, public utilities and manufacturing. It also provides training for students who intend to pursue the study of economics at more advanced levels, and for those who plan to teach economics at a two-year com-

munity college. The program offers sufficient flexibility to meet the career objectives of students with various interests.

Admission Requirements

Applicants to this program must meet the general admission requirements and have as a minimum a major in economics (20 credit hours) including the equivalent of ECO 301 Intermediate Macroeconomics, ECO 302 Intermediate Microeconomics and ECO 310 Economic Statistics.

Degree Requirements

In addition to the general degree requirements, the student shall satisfactorily complete ECO 415 Introduction to Econometrics and ECO 511 Mathematical Economics. No more than nine (9) credits of 400 level economics courses will be approved toward the degree.

MASTER OF ARTS IN APPLIED ECONOMICS

The need for economists capable of applying their special skills to real-life situations and problems has increased greatly during the last decade. This program provides an organized and carefully developed study of applied economics. While the program satisfies the general education requirements of

the economics profession, the focus is specifically on filling the need for empirically oriented applied economists.

In addition to the sequence of core courses, the program emphasizes research opportunities and the utilization of quantitative approaches. Extensive use of computer techniques comprise an integral part of the program.

The program introduces students to the art of model building for the purpose of analyzing complex public policy issues, such as taxation, transportation, energy, environment, technology, education, demography, health care and similar topics. The program also provides students with modern techniques of model estimation, assessment, simulation and forecasting.

Admission Requirements

Applicants to this program must meet the general admission requirements and have a bachelor's or master's degree with a minor/major in mathematics or economics, or a bachelor's degree in engineering, or a baccalaureate degree with adequate mathematics background.

Degree Requirements

In addition to the general degree requirements, the student shall satisfactorily complete the following courses:

- a. ECO 415 Introduction to Econometrics,
ECO 511 Mathematical Economics,
ECO 606 Applied Microeconomics,
ECO 607 Applied Macroeconomics,
and either
- b. ECO 510 Applied Economics
Statistics, or
ECO 515 Econometrics: Theory and
Applications

MASTER OF ARTS IN DEVELOPMENT, TRADE AND PLANNING

The need for administrative personnel with backgrounds in economic development, trade and planning has become more pressing during the last decade. This is the result of increased international interdependence and of growing demand for systematic planning in both private enterprise and government operations. Developing nations have a special need for professionals trained in this area. This program prepares

students for careers as staff economists in government, business and international organizations.

Students are provided with (a) a historical review of policy experience in various nations regarding planning and development issues; (b) an understanding of economic theory and its applications to planning and development; (c) training in the use of quantitative methods relevant to planning and development; (d) detailed knowledge of the theoretical and empirical aspects of international trade; and (e) the requisite skills to evaluate specific policy issues. The various segments are coordinated so that a logical progression in course work can be completed efficiently, and the interrelationship between different segments can be fully appreciated by students.

Admission Requirements

Applicants to this degree program must meet the general admission requirements and have a bachelor's degree in economics (major/minor), or a bachelor's or master's degree in business administration, or a baccalaureate degree in an equivalent or appropriate field.

Degree Requirements

In addition to the general degree requirements, the student shall satisfactorily complete the following courses:

- a. two (2) courses selected from:
ECO 415 Introduction to
Econometrics
ECO 510 Applied Economic
Statistics
ECO 511 Mathematical Economics
ECO 515 Econometrics: Theory
and Applications
- b. four (4) courses selected from:
ECO 472 The Soviet Economy
ECO 561 The Economics of Multina-
tional Enterprise
ECO 575 The Economics of
Socialism
ECO 580 International Trade:
Theory and Policy
ECO 581 The International Monetary
System
ECO 585 Economic Growth and
Development
ECO 586 Economic Planning
ECO 587 Case Studies in Economic
Development

ECONOMICS COURSES

Basic Courses for Non-Majors

ECO 500 Economics: Principles and Institutions. Three sem hours

Study of major economic institutions, the basic analytic tools of economic theory and their use. *Not open to students having had ECO 201 and 202 Principles of Economics or equivalent.*

ECO 501 Macroeconomic Theory and Policy. Three sem hours

National income analysis, employment theory, monetary theory and practice and their application to economic policy. This course is designed for graduate students majoring in fields other than economics, primarily those in the College of Business. *Not open to students who have had ECO 301 Intermediate Macroeconomic Analysis. Prereq: One course in economics or departmental permission.*

ECO 502 Microeconomic Theory and Policy. Three sem hours

Analysis of the economic behavior of individuals and firms under various market conditions, the determination of relative prices, the allocation of resources and related problems. This course is designed for graduate students majoring in fields other than economics, primarily those in the College of Business. *Not open to students who have had ECO 302 Intermediate Microeconomic Analysis or equivalent. Prereq: One course in economics or departmental permission.*

ECO 503 Contemporary Economic Problems. Three sem hours

Analysis of one or more current economic issues with a goal of better public understanding of the issue implications of policy solutions. *Not open to economics majors. Prereq: One course in economics or departmental permission.*

ECO 508 International Trade. Three sem hours (Formerly International Economics)

A study of the causes and economic effects of trade; commercial policies and their effects on trade; trade issues and conflicts; and international factor movements. *Prereq: ECO 501 Macroeconomic Theory and Policy and ECO 502*

Microeconomic Theory and Policy or equivalent, or departmental permission.

Courses for Degree Program

ECO 506 Development of Economic Analysis. Three sem hours

Review of major theories and concepts in the development of economics as a scientific discipline. Emphasis is directed toward changing methods and theories of economic analysis and their implications for economics policy, including pre-classical, classical and neoclassical, Keynesian and neo-Keynesian thought. *Prereq: ECO 301 Intermediate Macroeconomic Analysis and 302 Intermediate Microeconomic Analysis or equivalent.*

ECO 509 International Monetary Economics. Three sem hours

A study of the foreign exchange market, exchange rate systems, the balance of payments, macroeconomic aspects of international trade, the institutions and problems of the international monetary system. *Prereq: ECO 501 Macroeconomic Theory and Policy and ECO 502 Microeconomic Theory and Policy.*

ECO 510 Applied Economic Statistics. Three sem hours

Application of statistics and quantitative analysis to economic problems using computer techniques. *Prereq: ECO 310 Economic Statistics or equivalent, or departmental permission.*

ECO 511 Mathematical Economics. Three sem hours

Study of economic models, matrix algebra and linear economic models, linear programming and game theory, optimization problems and calculus of variations. *Prereq: MTH 119 Mathematical Analysis for Social Science II or MTH 120 Calculus and ECO 301 Intermediate Macroeconomic Analysis and 302 Intermediate Microeconomic Analysis or equivalent.*

ECO 515 Econometrics: Theory and Applications. Three sem hours

Development and analysis of econometric models using the tools of statistics for estimation. Treatment of errors in variables and some other problems arising from autocorrelated disturbances, and various other problems such as multicollinearity, heteroscedasticity, lagged variables and dummy variables. Analysis of the simultaneous-equation problems, including identification problems, indirect least squares, two stage least squares, limited-information methods, full-information and three stage least squares. *Prereq: ECO 415 Introduction to Econometrics or departmental permission.*

ECO 520 Analytic Labor Economics. Three sem hours

Application of microeconomic theory in analyzing labor market behavior. Topics covered include labor supply, labor demand, investment in human capital, worker mobility and a critique of the microeconomic approach to labor economics. *Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.*

ECO 522 Collective Bargaining. Three sem hours

Labor and management relations considered from the point of view of the two parties and the public welfare; labor contracts. Traditional and current areas of dispute and methods of settlement. *Prereq: Two courses in economics or departmental permission.*

ECO 524 White Collar and Public Employee Unionism. Three sem hours

An analysis of the special characteristics of labor organizations and collective bargaining patterns in public employment and in selected white collar occupations of the private sector of the economy. *Prereq: Two courses in economics or departmental permission.*

ECO 526 Human Resources and Public Policy. Three sem hours

An economic analysis of human resource development with an emphasis on labor market issues. Topics include public employment policy, labor market discrimination and the role of education in the labor market. *Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.*

ECO 533 Agricultural Economics. Three sem hours

Economic analysis of the agricultural sector including the study of its institutions, land use, tenure systems, techniques of production, entrepreneur development, marketing arrangements, capital-credit use and agriculture's role in economic development. *Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.*

ECO 534 Regional and Urban Economics. Three sem hours

Examination of problems of economic adjustment and development of regions, including inner city and metropolitan areas. Mass transit, public finance, housing, economic base studies, race distribution and poverty will be examined. *Prereq: Six hours of economics or departmental permission.*

ECO 540 Monetary Economics. Three sem hours

The development of monetary and central banking theory; policy applications and limitations in the context of the relationships between money, prices, national income and the balance of payments. *Prereq: ECO 301 Intermediate Macroeconomic Analysis or equivalent.*

ECO 545 Economic Forecasting and Policy. Three sem hours (Formerly ECO 555 Stabilization Policy)

Examines the use of macroeconomic theory and forecasting techniques in the formulation and evaluation of economic stabilization policies. *Prereq: ECO 301 Intermediate Macroeconomic Analysis, ECO 310 Economic Statistics or equivalent.*

ECO 550 Public Finance: Analysis and Policy. Three sem hours

Detailed, theoretical analysis of the problems of budgeting and budget techniques, methods to evaluate expenditures, efficiency and equity considerations in tax policy, problems of stabilization policy and growth policy evaluation of the impact and importance of national debt.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.

ECO 551 State and Local Government Finance. Three sem hours

Economic analysis of expenditures, revenues and debt management of state and local governments.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent or departmental permission.

ECO 560 Economics of Industrial Organization. Three sem hours

The enterprise sector of a capitalist economy; incidence of competition and monopolistic techniques in various industries and markets, market structure, conduct and performance, mergers and concentration and public policies.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.

ECO 561 Economics of Multinational Enterprise. Three sem hours

Economics of international competition and monopoly. Analysis includes studies of direct foreign investment, national economic anti-trust policies, the multinational firm and their relation to trade and economic efficiency.

Prereq: ECO 480 International Economics or ECO 560 Economics of Industrial Organization or departmental permission.

ECO 562 Government and Business. Three sem hours

The political and economic functions of government, business corporations and financial mergers, direct control of business, control versus government ownership of utilities, governmental controls of agriculture and natural resources, the responsibility of government in maintaining employment.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.

ECO 575 The Economics of Socialism. Three sem hours

Survey of the economic thought bases of the various types of socialism followed by a comprehensive study of the planning and operation of modern socialist economics.

Prereq: Six hours of economics or equivalent or departmental permission.

ECO 580 International Trade: Theory and Policy. Three sem hours

Study of the principle of comparative advantage, the determinants of the commodity composition of trade, international factor movements and commercial policies.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.

ECO 581 The International Monetary System. Three sem hours

Theoretical and empirical examination of international monetary issues including the balance of payments, fixed vs. flexible exchange rates, stabilization policies in an open economy, disturbance transmission mechanisms and interdependence, institutions.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis.

ECO 585 Economic Growth and Development. Three sem hours

Conditions, courses and consequences of growth and development, instruments of expansion and control and important theories and models of growth.

Economic growth in both the United States and underdeveloped countries.
Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.

ECO 586 Economic Planning. Three sem hours

Study of the government's economic decision-making apparatus, the formulation of economic plans, the selection of optimal plans from among a feasible set, and the problems of transition from general to sectoral and decentralized plans.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.

ECO 587 Case Studies in Economic Development. Three sem hours

Survey of economic development in selected countries or regions with emphasis on development policies, theoretical applications and economic structures of countries or regions surveyed.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.

ECO 592 Special Topics. Three sem hours (Formerly ECO 594)

An advanced level course in a specific area of economics.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 302 Intermediate Microeconomic Analysis or equivalent.

ECO 594 Workshop in Economics. Two sem hours (Formerly ECO 595)

Selected principles of economics presented by visiting consultants. Class discussion on phases of contemporary economics.

ECO 601 Macroeconomic Analysis. Three sem hours

National income accounting as a framework for economic analysis; determinants of consumption, investments and government expenditures; models of underemployment and inflation.

Prereq: ECO 301 Intermediate Macroeconomic Analysis or equivalent, or departmental permission.

ECO 602 Microeconomic Analysis. Three sem hours

Economic analysis of the behavior of individuals and firms, price determination in competitive and monopolistic markets, general static equilibrium and the allocation of resources.

Prereq: ECO 302 Intermediate Microeconomic Analysis or equivalent and ECO 511 Mathematical Economics, or departmental permission.

ECO 604 Research Seminar in Economics. Three sem hours (Formerly ECO 504 Introduction to Research Methods in Economics)

Examines selected issues of research methodology, procedures and techniques. Students conduct individual research projects, present their findings in a seminar format and submit a research paper.

Prereq: ECO 415 Introduction to Econometrics or equivalent.

ECO 605 Managerial Economics. Three sem hours

Application of economic analysis to decision making and business management, focusing on the areas of production, costs, as well as investment, pricing demand estimation and economic forecasting.

Prereq: ECO 501 Macroeconomic Theory and Policy, ECO 502 Microeconomic Theory and Policy, ECO 310 Economic Statistics or equivalent.

ECO 606 Applied Microeconomics. Three sem hours

Integrates microeconomic theory and quantitative methods, providing tools to formulate, estimate and evaluate microeconomic relationships. Topics include: estimating demand functions (energy, housing, automobile demand and elasticities), Engel curves, production functions and cost functions.

Prereq: ECO 302 Intermediate Microeconomic Analysis and ECO 415 Introduction to Econometrics or equivalent.

ECO 607 Applied Macroeconomics. Three sem hours

Study complete static macroeconomic models, using the computer's dynamic simulations to simultaneous economic system. Examples are Money Models, industrial organization, labor economic systems, health economics and monetary and fiscal policy problems.

Prereq: ECO 301 Intermediate Macroeconomic Analysis and ECO 415 Introduction to Econometrics or equivalent.

ECO 690, 691, 692 Thesis. One, two and three sem hours

Completion of research problems and writing thesis.

Prereq: Approved thesis proposal.

ECO 695 Seminar in Economics. Three sem hours (Formerly ECO 596)

A seminar in advanced economic theory or policy open only to degree students of the department.

Prereq: Twelve hours toward M.A. degree.

ECO 697, 698, 699 Independent Studies. One, two and three sem hours (Formerly ECO 597, 598, 599)

An intensive study of a problem or group of problems under the direction of a member of the economics faculty.

Prereq: Departmental permission.

OTHER COURSES

These upper division undergraduate courses may also be taken for graduate credit and applied on the department's degree program providing prior approval has been given by adviser. No more than nine (9) hours of undergraduate course work are permitted in the earning of any graduate degree. See the Undergraduate Catalog or course descriptions.

- ECO 405 Economic Analysis for Business (3)**
- ECO 415 Introduction to Econometrics (3)**
- ECO 420 Comparative Labor Unionism (3)**
- ECO 422 Union Leadership (3)**
- ECO 424 Seminar in Labor Issues (3)**
- ECO 436 Health Economics (3)**
- ECO 445 Economic Fluctuations and Forecasting (3)**
- ECO 455 Cost Benefit Analysis (3)**
- ECO 471 Case Studies of Developing Economies (3)**
- ECO 472 The Soviet Economy (3)**
- ECO 480 International Economics (3)**

TENTATIVE SCHEDULE

Course	Winter	Spring	Summer	Fall
ECO 500	X			X
ECO 501	X			X
ECO 502	X	X		X
ECO 503		X		
ECO 504		X		

ECO 506	X			
ECO 508	X			X
ECO 510				
ECO 511				X
ECO 511		†		
ECO 520				
ECO 522				
ECO 524				
ECO 526				
ECO 533				
ECO 534				
ECO 540				
ECO 550		†		
ECO 551		‡		
ECO 555		†		
ECO 560				†
ECO 561				
ECO 562		†		
ECO 575				†
ECO 580				†
ECO 581				
ECO 585				X
ECO 586	X			
ECO 601				X
ECO 602	X			
ECO 606		X		
ECO 607				X
ECO 695	X			

† Courses offered on a two (2) year cycle during odd years.

‡ Courses offered on a two (2) year cycle during even years.

ENGLISH LANGUAGE AND LITERATURE

Judith A. Johnson
Department Head
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James A. Reynolds
Coordinator of Advising
613-J Pray-Harrold
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Students enrolling in the program for the Master of Arts in English may choose one of four separate concentrations:

1. Literature
2. Written Communication
3. Children's Literature
4. English Linguistics

Each of these concentrations is described on the following pages. Candidates for degrees in other departments may elect English Department courses as cognates.

General Requirements:

In addition to the Graduate School degree admission requirements set forth in the early pages of this catalog, the Department of English requires:

1. At least 24 hours of undergraduate English, excluding freshman composition, and a minimum undergraduate grade point average of 3.0. Applicants not meeting these standards may apply for conditional or alternative admission.
2. If the applicant's native tongue is not English, a TOEFL (Test of English as a Foreign Language) score of 570, or a score of 90 on the Michigan Test (English Language Institute, University of Michigan), is required. These students also must pass a brief written examination in English and American literature, to be administered by the graduate adviser. Applicants not meeting these standards may apply for conditional admission.
3. For the degree, a minimum of 30 semester hours of graduate work in a program of study approved by the coordinator of graduate studies, with grades averaging "B" or better. A master's thesis is not required.

Language Requirement:

A candidate is expected to possess some knowledge of a foreign language or of early English. This requirement may be fulfilled in one of the following ways:

1. by presenting two years (or the equivalent) of undergraduate foreign language credit;
2. by passing FRN 616, 617 Reading French for Graduate Students with a grade of "B" or better (recommended for students planning to do Ph.D. work in English);
3. by taking six hours of graduate work chosen from Old English, Old English dialects, Chaucer, history of the English language. (Students with equivalent undergraduate training may be excused by petition.)

The coordinator of graduate studies is Professor James A. Reynolds. Members of the Department Graduate Committee are available during regular office hours for information or counseling.

THE MASTER OF ARTS IN ENGLISH WITH CONCENTRATION IN LITERATURE

Objectives of the Degree:

The M.A. in English with a concentration in literature is designed to provide master's level competence in

English and American literature.

The degree is an appropriate choice for candidates who anticipate teaching on the elementary, high school or community college level. It prepares candidates who anticipate doctoral study in English or American literature. The degree provides a valuable educational background for library careers or for many professions where accuracy and clarity of expression, combined with a knowledge of literature, are desired (communications, government, advertising, business, editing and publication). It is also useful for professions in which high value is placed on ease of communication and facility of expression, such as counseling, guidance, personnel relations or management.

Requirements and Electives (24 credit hours):

A candidate completes a major or 18 hours in the department's courses in English and American literature (excluding children's literature for which there is a separate degree). Six additional hours are taken from the department's wider offerings, without limitation as to field.

Cognates or Additional Electives (6 credit hours):

A candidate takes up to six hours of cognate courses in other departments or up to six hours of additional electives in the English Department.

Language Requirement:

Candidates are referred to the "Guidelines for Language Requirements for the M.A. in English."

M.A. Examination:

During the semester before graduation, a candidate is required to pass a written examination covering major works of English and American literature. A new list of works is posted each September. All students admitted to the program after fall semester 1983 will be required to take the examination.

Note:

No more than nine hours of approved undergraduate 400 level courses may be applied on this program.

COURSES FOR MASTER OF ARTS IN ENGLISH WITH CONCENTRATION IN LITERATURE

MEDIEVAL AND RENAISSANCE LITERATURE

LIT 511 Literary Criticism. Three sem hours

A study of various approaches to literary criticism with application to specific works.

Prereq: Fifteen hours of credit in literature.

LIT 512 Middle English Literature. Three sem hours

A study of the genres of Middle English literature (chronicle, dialogue, exemplum, fable, romance, sermon, etc.).

Prereq: Fifteen hours of credit in literature.

LIT 520 Old English Poetry. Three sem hours (Formerly LIT 420)

A study of Old English prosodic conventions with a close reading of representative poems from various types and schools of Old English poetry.

Prereq: Three courses in literature.

LIT 523 Realism and Naturalism in the American Novel. Three sem hours

Realism and naturalism as theory and as practice in the late 19th and early 20th centuries, with emphasis on Howells, Twain, James, Crane, Norris and Dreiser.

Prereq: Fifteen hours of credit in literature.

LIT 525 Henry James. Three sem hours

Major novels, shorter fiction and literary criticism of Henry James.

Prereq: Fifteen hours of credit in literature.

LIT 526 The Harlem Renaissance and Beyond. Three sem hours

A study of Afro-American literature since 1920 with special emphasis on the 1920s and the influence of this period upon more contemporary works.

Parallels will be drawn between trends in Afro-American literature and American literature as a whole and between the Harlem Renaissance and the literature of the last decade.

Prereq: Fifteen hours of credit in literature.

LIT 530 Studies in Chaucer. Three sem hours

Intensive reading of Chaucer's major works and supplementary reading in Chaucerean criticism.

Prereq: Fifteen hours of credit in literature.

LIT 540 Elizabethan Drama. Three sem hours

The plays of Marlowe, Jonson and Webster, considered primarily for their intrinsic literary and dramatic merit and secondarily for the light they throw on Shakespeare's milieu. A greater understanding of the term "Elizabethan Drama."

Prereq: Fifteen hours of credit in literature.

LIT 541 Studies in Shakespeare. Three sem hours

Studies in the historical, biographical, textual and critical scholarship relevant to two or three of Shakespeare's plays. Investigations, reports, papers.

Prereq: Fifteen hours of credit in literature, including one course in Shakespeare.

LIT 545 Studies in Renaissance Literature. Three sem hours

A specialized study of major non-dramatic poetry and prose of the English Renaissance (exclusive of the works of John Milton). Specific major authors to be studied may include Shakespeare, More, Sidney, Spenser, Marlowe, Bacon, Jonson, Donne and Herbert.

Prereq: Fifteen hours of credit in literature.

LIT 551 Studies in Milton. Three sem hours

The complete poetry and selected prose of John Milton, with some attention to his intellectual milieu.

Prereq: Fifteen hours of credit in literature.

LIT 561 Studies in 18th-Century Literature. Three sem hours

A specialized study of the poetry and non-fiction prose of selected number of major authors of the Restoration and 18th-century. Specific authors to be studied may include Dryden, Swift, Pope, Thompson, Collins, Gray, Johnson, Goldsmith and Boswell.

Prereq: Fifteen semester hours of literature.

LIT 563 Studies in 18th-Century Fiction. Three sem hours

A specialized study of major authors, genres and themes of 18th-century fiction. The fiction studied will include works by such authors as Defoe, Swift, Fielding, Richardson, Sterne, Goldsmith, Walpole and Smollett.

Prereq: Fifteen hours of credit in literature.

LIT 565 Studies in 19th-Century British Fiction. Three sem hours

Specialized study of selected English novelists of the 19th-century. Novelists studied may include Austen, Scott, Disraeli, the Brontes, Gaskell, Thackeray, Dickens, Eliot, Trollope, Meredith, Hardy and others.

Prereq: Fifteen hours of credit in literature.

LIT 566 Studies in 20th-Century British Fiction. Three sem hours

Specialized study of the work of two or three major 20th-century British novelists such as Conrad, Lawrence, Ford, Woolf, Forster, Huxley, Cary, Durrell and Greene.

Prereq: Fifteen hours of credit in literature.

LIT 567 Studies in 20th-Century Irish Literature. Three sem hours

Specialized study in prose, poetry, and drama of 20th-century Irish literature with attention to such major figures as Yeats, Shaw, Joyce, Synge, O'Casey, O'Faolin, Beckett, Kavanagh.

Prereq: Fifteen hours of credit in literature.

LIT 568 Whitman and Dickinson. Three sem hours

The work of Whitman and Dickinson examined for its intrinsic value as poetry and as illustrative of the power of isolated poetic genius.

Prereq: Fifteen hours of credit in literature.

LIT 569 The American Renaissance: 1830-1860. Three sem hours

Specialized study of the work of three or four of the following writers: Cooper, Poe, Emerson, Thoreau, Hawthorne, Melville.

Prereq: Fifteen hours of credit in literature.

LIT 570 Studies in Romantic Literature. Three sem hours (Formerly Wordsworth).

An intensive study of the poetry and nonfictional prose of at least two of the poets and essayists from the Romantic period (e.g., Blake, Wordsworth, Coleridge, Keats, Byron, Shelley, Hazlitt, DeQuincey, Lamb).

Prereq: Fifteen hours of credit in Literature.

LIT 575 Studies in Victorian Literature. Three sem hours (Formerly Carlyle and Arnold).

An intensive study of the poetry and nonfictional prose of at least two of the major writers from the Victorian period (e.g., Carlyle, Tennyson, the Brownings, Arnold, the Rosettis, Swinburne, Newman, Mill, Ruskin, Pater).

Prereq: Fifteen hours of credit in literature.

LIT 576 Studies in 20th-Century American Fiction. Three sem hours

Specialized study of two or three major 20th-century American novelists, such as Hemingway, Fitzgerald, Faulkner, Nabokov and Bellow.

Prereq: Fifteen hours of credit in literature.

LIT 577 Studies in 20th-Century American Poetry. Three sem hours

Specialized study of the work of two or three major 20th-century poets, such as Pound, Eliot, Stevens, Williams, Roethke, Robinson, Frost, e.e. Cummings, Hart Crane, Robert Lowell.

Prereq: Fifteen hours of credit in literature.

LIT 592 Special Topics. Three sem hours (Formerly LIT 596 Seminar in Special Topics)

Topics will be announced from time to time. The following are examples of topics offered in recent years:

Joyce, Yeats, and Shaw
Southern Gothic Fiction
Medieval and Renaissance Allegory
Hemingway, Fitzgerald and Faulkner

Prereq: Fifteen hours of credit in literature. Further prerequisites may be required for some topics.

LIT 697, 698, 699, Independent Studies. One, Two and three sem hours (Formerly LIT 597,598, 599)

An intensive study of a problem or group of problems under the direction of a University faculty member.

Not to be elected until a student has been accepted as a candidate for the master's degree in literature.

Prereq: Fifteen hours of credit in literature and permission of the Graduate Committee.

OTHER COURSES FOR CREDIT TOWARD MASTER OF ARTS IN ENGLISH WITH CONCENTRATION IN LITERATURE

Courses at the 400-level for advanced undergraduates are also available to graduate students. For descriptions of these courses, see the Undergraduate Catalog. No more than nine (9) hours of undergraduate course work are permitted in the earning of any graduate degree.

THE MASTER OF ARTS IN ENGLISH WITH CONCENTRATION IN WRITTEN COMMUNICATION

In lieu of some of the 24 hours of undergraduate course work in English language, literature and composition, candidates may submit extensive experience in professional writing or teaching equivalents. (See 1. under General Requirements, page 65.)

Objectives of the Degree:

The M.A. in English with a concentration in written communication provides an opportunity for advanced studies in the relationship between rhetorical theory and composition skills, the cognitive processes of the writer, the nature of the English language and its embodiment in both practical and literary modes. Writing workshops reinforce candidates' writing ability and guide them in mastering the forms of expository, creative and technical writing. The teaching of composition at the elementary, secondary and college levels is the focus of several elective options. Studies of research methods in composition aid the candidate in analyzing systematically both student and pro-

fessional writing. An independent study course consolidates the specialized program, either through a research project or a portfolio.

The concentration is flexible enough to be an appropriate choice either for candidates preparing for careers in professional writing, editing or publishing, or in teaching writing at the elementary, secondary or community college level. It also provides a thorough preparation for Ph.D. studies in rhetoric and composition.

Requirements:

Ordinarily a candidate will complete 15 hours of required courses in writing and language theory, practice and research:

1. Rhetorical Theory - 3 hours
ENG 503 Rhetoric and Advanced Composition
2. Writing - 3 hours
ENG 524 Advanced Technical Writing and Research
ENG 422 Writer's Workshop
ENG 424 Technical Writing
ENG 450 Children's Literature: Criticism and Response
ENG 453 Advanced Reporting
3. Linguistics/Language - 3 hours
ENG 502 History and Grammar
ENG 510 Historical and Comparative Linguistics
ENG 525 Advanced English Syntax
ENG 531 Semantics: The Study of Meaning
ENG 532 Sociolinguistics
ENG 533 General Psycholinguistics
ENG 402 Modern English Syntax
ENG 421 The History of the English Language
4. Research in Writing Theory and Practice - 3 hours
ENG 621 Research in the Theory and Practice of Writing
5. Research Project Portfolio - 3 hours
ENG 699 Independent Study

Literature (6 hours):

Select from literature course list (see pages 66-67).

Electives (3-6 hours):

1. Teaching of writing -3 hours
ENG 504 Teaching Writing, K-12
ENG 596 Teaching Composition on the College Level
2. Additional practical writing courses - 3 hours
ENG 524 Advanced Technical Writing and Research

ENG 522 Writer's Workshop
ENG 424 Technical Writing
ENG 450 Children's Literature:
Criticism and Response

3. Additional linguistic or language courses - 3 hours

Select from linguistics course list (see pages 70-71).

Cognates (3-6 hours):

Suggested areas include: graphic design, public relations, communication theory, computer science, teaching English as a second language, reading, cognitive psychology, measurements and evaluation, descriptive statistics.

Language Requirement:

Candidates are referred to the language requirement printed as part of the general requirements for the master's degree in the Department of English Language and Literature on page 65.

NOTE: No more than nine hours of approved undergraduate 400 level courses may be applied on this program.

COURSES FOR MASTER OF ARTS IN ENGLISH WITH CONCENTRATION IN WRITTEN COMMUNICATION

ENG 503 Rhetoric and Advanced Composition. Three sem hours

A composition course designed to increase the student's proficiency in writing clear and precise expository prose. Considerable practice in writing, with attention to modern and classical theories of rhetoric.

ENG 504 Teaching Writing, K-12. Three sem hours (Formerly Improving the Teaching of Writing)

A review of research and theory in teaching writing, with focus on designing methods and materials for classroom instruction in elementary schools.

ENG 524 Advanced Technical Writing and Research. Three sem hours (Formerly Technical Research and Report Writing)

This course continues ENG 424 Technical Writing and is designed to prepare students to write professionally in business and industry. Students will

research appropriate information and prepare oral and written reports, proposals, brochures and manuals.
Prereq: ENG 424 Technical Writing or equivalent.

ENG 596 Teaching Composition on the College Level. Three sem hours

A course in the methods of teaching English composition, with particular attention to beginning courses on the college and junior college level.

Required of all graduate assistants and open to other interested M.A. candidates.

ENG 621 Research in Theory and Practice of Writing. Three sem hours

A study of the nature, value and methods of research in writing. Students will learn how to design ways to test theories about problems in both classroom and professional writing.

Prereq: Nine hours of composition program courses including ENG 503 Rhetoric and Advanced Composition.

ENG 697, 698, 699 Independent Studies in English. One, two and three sem hours

An intensive study of a problem or research area not covered in regular courses; under the direction of a faculty member.

Prereq: Candidate for the M.A.; permission of the Graduate Committee.

OTHER COURSES FOR CREDIT TOWARD MASTER OF ARTS IN ENGLISH WITH CONCENTRATION IN WRITTEN COMMUNICATION

Courses at the 400 level for advanced undergraduates are also available to graduate students. For descriptions of these courses, see the Undergraduate Catalog. No more than nine (9) hours of undergraduate work are permitted in the earning of any graduate degree.

THE MASTER OF ARTS IN ENGLISH WITH CONCENTRATION IN CHILDREN'S LITERATURE

Objectives of the Degree:

The M.A. in English with concentra-

tion in children's literature provides an opportunity for advanced studies in all major areas of children's literature, folklore, mythology and writing for children.

Candidates usually begin with an introduction to the major genres of children's literature. Extensive reading, criticism and scholarship are emphasized. A second course is devoted to methods of teaching literature to children and is particularly recommended for prospective teachers. A third course traces the historical development of children's literature since the introduction of printing into England. In addition, there is a special topics course that varies from semester to semester and can be repeated for credit. *No more than six (6) hours special topics courses may be used on a degree program.*

This concentration is valuable not

only for teachers of elementary, middle or junior high schools, but also for librarians, special education teachers, reading specialists, recreation supervisors, editors and representatives in publishing houses specializing in children's books, writers of children's books, directors of religious education, youth workers in social service agencies, day care center directors and book store managers. It also provides preparation for teachers of children's literature in two and four year colleges.

Requirements:

Ordinarily a candidate will complete a major of the 12 required hours from the following:

- LIT 516 Major Genres in Children's Literature (3)
- LIT 517 Teaching Children's Literature (3)
- LIT 518 History of Children's Literature (3)
- LIT 581 Critical Approaches to Mythology (3)
- LIT 582 Wisdom of the People: Ballads, Legends, and Tales (3)
- LIT 592 Special Topics (3)

Twelve additional hours may be chosen from appropriate English courses for which graduate credit is given.
Cognates: zero to six hours.

Language requirement:

See Departmental General Requirements on page 65 of this catalog.

COURSES FOR THE MASTER OF ARTS IN ENGLISH WITH CONCENTRATION IN CHILDREN'S LITERATURE.

LIT 516 Major Genres in Children's Literature. Three sem hours

An intensive study of the major genres of children's literature with emphasis on important representative examples and upon related criticism.

LIT 517 Teaching of Children's Literature. Three sem hours

A course concentrating on the value of literature for children with discussion and demonstration of various techniques used in teaching it. Additional readings in selected genres will be required. Offered for anyone planning to work with children, pre-school through grade nine.

LIT 518 History of Children's Literature. Three sem hours

An examination of books for children written before the present century. Emphasis will be placed on major authors and movements from 1744 to 1908 and on what these reveal about changing attitudes toward children and the corresponding changes in the literature written for them.

LIT 581 Critical Approaches to Mythology. Three sem hours (Formerly Comparative Mythology: Heaven, Hell and the World Between)

An investigation of myths from many cultures demonstrating individual responses to universal questions of human existence. Students will respond critically to the various theories of myth through their reading and analysis of myths as literature.
Prereq: Fifteen hours of literature or permission of instructor.

LIT 582 Wisdom of the People: Ballads, Legends and Tales. Three sem hours

Reading and analysis of printed tales, legends and ballads using the tools of folklore scholarship. Students also collect and analyze oral materials.
Prereq: Fifteen hours of credit in literature or departmental permission.

LIT 592 Special Topics. Three sem hours

Topics will be announced each year. Some from the recent past include: Literature for Younger Children; Recent Fiction; Poetry for Children; The Golden Age of Children's Literature; Fantasy for Children and Young People.
Prereq: Fifteen hours of credit in literature.

THE MASTER OF ARTS IN ENGLISH WITH CONCENTRATION IN ENGLISH LINGUISTICS

Objectives of the Degree:

The M.A. in English with concentration in English linguistics offers each candidate the opportunity for increasing his or her professional competence in the structure of English, in the ongoing processes of historical change within it and in the application of appropriate models of linguistic analysis to the study of English communication.

English as a coherent and discrete system of behavior is emphasized in the courses dealing with grammatical and syntactical structure of the language. English as a chronological and systemic evolution is presented in the study of the history of the language and in the specific historical periods (Old English, Middle English). English and its linguistic system is viewed through a variety of appropriate models in the linguistic science courses, emphasizing methods and procedures of linguistic analysis.

The degree is an appropriate choice for those candidates who are preparing to teach English communication on the high school or community college level. It is an appropriate choice for candidates already teaching English communication on the secondary level who are pursuing permanent certification. This degree is also an appropriate choice for candidates who anticipate doctoral study in English language or linguistics. In addition, it is appropriate for candidates who are preparing to pursue careers in editing, publishing or writing, where an awareness of the variety of the linguistic modalities of English is necessary.

TESOL PROGRAM

Students interested in practical applications of English linguistics are also advised to consult the Master of Arts program in TESOL (Teaching English to Speakers of Other Languages) offered by the Department of Foreign Languages and Bilingual Studies.

Majors and Electives (30 credit hours):

Ordinarily a candidate will complete 15 hours of required courses in English linguistics:

- ENG 510 Historical and Comparative Linguistics (3) *or*
- ENG 531 Semantics: The Study of Meaning (3)
- ENG 525 Advanced English Syntax (3)
- ENG 532 Sociolinguistics (3) *or*
- ENG 533 General Psycholinguistics (3)
- ENG 534 General Phonology (3)
- ENG 699 Independent Study (3)

Fifteen additional hours of elective courses will be selected from the following:

- ENG 501 American English: Regional and Social Dialects (3)

ENG 502 History of Grammar (3)
 ENG 506 Introduction to Old English (3)
 ENG 509 Old and Middle English Dialects (3)
 ENG 543 Language of, by, for and About Women (3)
 ENG 592 Special Topics (3)
 ENG 697, 698, 699 Independent Study (1, 2, 3)
 LIT 512 Middle English Literature (3)
 LIT 520 Old English Poetry (3)
 LIT 530 Studies in Chaucer (3)

Additional Elective Courses:

CEN 501 Theoretical Foundations of Second Language Pedagogy (3)
 CEN 511 Practical Applications of Linguistics to ESL (2)
 MTH 536 Introduction to Digital Computation and FORTRAN (2)
 SLI 508 Variant English (3)
 SLI 616 Experimental Phonetics (3)

Language Requirement:

Candidates are referred to the "Guidelines for Language Requirements for the M.A. in English."

NOTE:

No more than nine hours of approved undergraduate courses may be applied on this program.

COURSES FOR THE MASTER OF ARTS IN ENGLISH WITH CONCENTRATION IN ENGLISH LINGUISTICS

ENG 501 American English: Regional and Social Dialects. Three sem hours

A study of both regional and social dialect differences in English and of recent dialect research demonstrating the correlation between reading and writing problems and dialect differences between pupils and their teachers and texts.

Prereq: Departmental permission.

ENG 502 History of Grammar. Three sem hours

Grammatical analysis from Plato to Chomsky: the influence of various linguistic theories and analytical methods on the development of contemporary language models and the

teaching of grammar.

ENG 506 Introduction to Old English. Three sem hours

The reading of representative selections of prose and poetry in the original Old English, and an introduction to Old English grammar.

Prereq: Three courses in literature.

ENG 509 Old and Middle English Dialects. Three sem hours

A study of the dialectal differences of Old and Middle English exemplified in literary texts of the medieval period, with an investigation of their contributions to standard modern English.

Prereq: ENG 421 History of the English Language. Recommended: LIT 413 The Poetry of Chaucer.

ENG 510 Historical and Comparative Linguistics. Three sem hours (Formerly Comparative Linguistic Analysis)

Introduction to comparative historical linguistics with special reference to the development of English from Germanic and Indo-European backgrounds.

Prereq: One linguistics course or departmental permission.

LIT 512 Middle English Literature. Three sem hours

A study of the genres of Middle English literature (chronicle, dialogue, exemplum, fable, romance, sermon, etc.).

Prereq: Fifteen hours of credit in literature.

LIT 520 Old English Poetry. Three sem hours

A study of Old English prosodic conventions with a close reading of representative poems from various types and schools of Old English poetry.

Prereq: Three courses in literature.

ENG 525 Advanced English Syntax. Three sem hours

An advanced course in syntactic analysis exploring recent research in transformation theory, semantic feature analysis, case grammar and symbolic logic.

Prereq: ENG 402 Modern English Syntax or ENG 401 Introduction to Linguistic Science or ENG 510 Comparative Linguistic Analysis.

LIT 530 Studies in Chaucer. Three sem hours

Intensive reading of Chaucer's major works and supplementary reading in Chaucerean criticism.

Prereq: Fifteen hours of credit in literature.

ENG 531 Semantics: The Study of Meaning. Three sem hours

A brief study of the historical background of modern semantic theory leading to in-depth semantic analysis of English utterances. Traditional and generative approaches to semantic concepts will be examined.

Prereq: One course in linguistics or departmental permission.

ENG 532 Sociolinguistics. Three sem hours

An analysis of the diversity in language caused by social factors and the correlative influence of these linguistic differences upon society and social status.

Prereq: One course in linguistics.

ENG 533 General Psycholinguistics. Three sem hours

An introduction to psycholinguistics, the mental representation of a grammar, perception of language units, aphasia and other language abnormalities, first and second language acquisition, bilingualism, language and thought. *Not open to students in speech-language pathology program.*

Prereq: One course in linguistics.

ENG 534 General Phonology. Three sem hours

A survey of modern phonological theory with concentration on the form of a phonological rule system within a modern grammar.

Prereq: ENG 401 Introduction to Linguistic Science, ENG 420 Introduction to Phonology, ENG 510 Comparative Linguistic Analysis or the equivalent.

ENG 592 Special Topics. Three sem hours

An experimental course for subject matter not yet provided in other department offerings. The content will change from semester to semester. Students may elect this course more than once as long as different topics are covered. *Not more than six hours of special topics may be used on a degree program.*

ENG 697, 698, 699 Independent Studies in English. One, two and three sem hours

An intensive study of a problem or research area not covered in regular courses; under the direction of a University faculty member.

Prereq: Candidate for the M.A.; permission of the Graduate Committee.

take any graduate courses in English for which they have the prerequisites.

OTHER COURSES FOR CREDIT TOWARD THE MASTER OF ARTS IN ENGLISH WITH CONCENTRATION IN ENGLISH LINGUISTICS

Courses at the 400-level for advanced undergraduates are also available to graduate students. For description of these courses, see the Undergraduate Catalog.

A maximum of three undergraduate courses (nine hours) may be approved for graduate credit.

GENERAL COURSES

ENG 513 The Language Arts in Two Cultures. Three sem hours

The course, held at London, England, will provide housing, breakfasts and lectures at the University of London, and field trips to city and country schools to explore methods of teaching the language arts, K-12.

Prereq: Graduate or senior standing.

ENG 543 Language of, by, for and About Women. Three sem hours

A study of women's language: how and why it differs from men's, how it affects writing style, what social effect it has and how it is changing.

LIT 580 The Making of the Modern Mind. Three sem hours

The emergence of the moral, social, political and religious dilemmas that confront thinking men and women of the 20th century, studied chiefly through works of British American literature. *Lit 580 is a course not credited toward an M.A. in the Department of English Language and Literature. This course is offered for the benefit of graduate students specializing in departments other than English who wish to take collateral or cognate work in the Department of English. Such students, however, are not restricted to this course; they may*

FOREIGN LANGUAGES AND BILINGUAL STUDIES

Jean S. Bidwell
Department Head
Alexander Music Building
487-0130

Geoffrey Voght
Coordinator of Advising
Spanish (Bilingual-Bicultural Education)
Alexander Music Building
487-0178

Raymond E. Schaub
Coordinator of Advising
Language and International Trade
Alexander Music Building
487-4448

Jo Ann Aebersold
Coordinator of Advising
TESOL (Teaching English to Speakers
of Other Languages)
Alexander Music Building
487-0319

The Department of Foreign Languages and Bilingual Studies offers a Master of Arts in Spanish (Bilingual-Bicultural Education), a Master of Arts in language and international trade, and a Master of Arts in Teaching English to Speakers of Other Languages (TESOL). A major emphasis in French, German or Spanish can also be developed through the Master of Arts in secondary school teaching or the Master of Arts in individualized studies.

SPANISH (BILINGUAL-BICULTURAL EDUCATION)

OBJECTIVES

Objectives of the program are to produce graduates with high-level competencies in the following areas:

Language:

This area of competence includes demonstrated proficiency in both Spanish and English, demonstrated ability to teach both languages as subject matters and demonstrated ability to use both languages as media of instruc-

tion in other subject matter areas.

Culture:

This area of competence requires students to demonstrate a number of specific abilities related to knowledge of Latino and other U.S. cultures and the diversity within each; awareness of and sensitivity to differences in socio-economic, cultural, and linguistic background; and skill in guiding students to acceptance and positive evaluation of cultural pluralism.

Methodology:

This area of competence includes, in addition to the skills mentioned above under Language and Culture, demonstrated ability to accommodate variations in cultural, linguistic and socio-economic background by individualizing instruction and utilizing appropriate evaluation instruments and procedures; demonstrated skill in classroom management, including team teaching and working with paraprofessionals; and demonstrated skill in organizing, planning and teaching lessons which integrate the bilingual-bicultural curriculum into the standard local district curriculum.

ADMISSION REQUIREMENTS

1. Meet Graduate School degree admission requirements.
2. Sufficient skills in both Spanish and English to successfully participate in graduate course and field work conducted in either language.
3. Experience with living and/or working in a multicultural setting, particularly with Hispanic people.
4. Intent to pursue and promise of successful completion of a program leading to a graduate degree.
5. Conditional admission will not be granted.

PROGRAM REQUIREMENTS

The candidate for an M.A. in Spanish (Bilingual-Bicultural Education) must fulfill the following requirements before the degree will be awarded:

1. Demonstrate language proficiency in both Spanish and English; proficiency will be determined by examination.
2. Possess a valid teaching certificate. (Not required for admission, however.)

3. Bilingual-Bicultural Core Curriculum (18 semester hours).

Track I*

- BIL 622 Teaching Hispanic Culture and Language (3)
 - CEN 410 Teaching English to Speakers of Other Languages (3)
 - FLA 421 History and Theory of Bilingual Education (3)
 - FLA 695 Seminar in Bilingual Education (3)
 - SPN 471 Culture and Literature of Hispanic Groups in U.S. (3)
 - SPN 682 U.S. Dialects of Spanish (3)
- *Track I is designed for those students who have no prior course work in bilingual education.

Track II (Placement by bilingual graduate advisor)**

- BIL 622 Teaching Hispanic Culture and Language (3)
- BIL 623 Bilingual Education Public Policy in the U.S. (3)
- BIL 624 Bilingual Education Theory (3)
- BIL 625 Bilingual Education Teaching Techniques (3)
- FLA 695 Seminar in Bilingual Education (3)
- SPN 482 Language of Hispanic Groups in the U.S. (3)

**Track II is designed for those students who wish to pursue an M.A. in bilingual education but hold a bilingual endorsement or bachelor's degree in that field through undergraduate study.

4. Six semester hours of electives from the following:
 - BIL 679, 680, 681 Special Topics (1, 2, 3)
 - CEN 501 Theoretical Foundations of Second Language Pedagogy (3)
 - CEN 520 Foreign Language Testing and Evaluation (2)
 - CUR 512 Enriching the Early Elementary Classroom (2)
 - CUR 600 Early Childhood Education (2)
 - CUR 616 Curriculum—Elementary School (2)
 - CUR 630 Curriculum Secondary School (2)
 - CUR 632 Individualizing Instruction in the Secondary School (2)
 - CUR 657 The Open Classroom (4)
 - CUR 658 The Community Centered Classroom (4)
 - EDP 631 Measurement and Evaluation (2)
 - RDG 518 Developmental Reading—Elementary (2)
 - RDG 519 Programs in Language Arts (2)
 - RDG 530 Developmental Reading Secondary (2)
 - RDG 554 Reading Problems for Learners with Special Needs (2)
 - SFD 580 Sociology of Education (2)
 - SFD 662 Cultural Determinates of Learning (2)
 - SPN 519 Spanish Phonology (2)
 - SPN 620 Spanish Grammar and Syntax (2)
 - SPN 621 Graduate Spanish Conversation (2)
5. Six semester hours of cognate work selected in consultation with graduate adviser.
6. Collateral Field Experience. An additional requirement for the core curriculum is three days' field experience for each course, except seminar. This represents a total of fifteen (15) days for the core-curriculum block.

Bilingual Endorsement Program for Certified Teachers (18 semester hours)
Not a degree program.

1. Demonstrate language proficiency in both Spanish and English; proficiency will be determined by examination.
2. Bilingual-Bicultural Core Curriculum Track I (18 semester hours)
 - BIL 622 Teaching Hispanic Culture and Language (3)

- CEN 410 Teaching English to Speakers of Other Languages (3)
- FLA 421 History and Theory of Bilingual Education (3)
- FLA 695 Seminar in Bilingual Education (3)
- SPN 471 Culture and Literature of Hispanic Groups in U.S. (3)
- SPN 482 Language of Hispanic Groups in the U.S. (3)

3. Collateral Field Experience. An additional requirement for the core curriculum is three days' field experience for each course, except seminar. This represents a total of fifteen (15) days for the core-curriculum block.

LANGUAGE AND INTERNATIONAL TRADE

OBJECTIVES

Objectives of the program are to promote cultural awareness and sensitivity with reference to our own society as well as to societies of other world regions and to provide the skills and knowledge necessary for competent performance in an international environment.

ADMISSION REQUIREMENTS

1. Meet Graduate School degree admission requirements.
2. Graduate level proficiency in one of the foreign languages offered in the department (English as a Second Language, French, German, or Spanish). Conditional admission may be granted students who do not meet the above undergraduate course requirements.

PROGRAM REQUIREMENTS

Business Area Core: (15-18 semester hours) At least one course from management and one course from marketing.

- MGT 501 Management: Concepts, Principles, and Practice (3)
- MKT 510 Marketing (3)
- MKT 520 International Business (3)
- MGT 580 Management of Organizational Behavior (3)

Students who have had a basic management and/or marketing course must substitute an appropriate course(s) in consultation with an adviser from the College of Business.

At least three of the following courses:

- ECO 501 Macroeconomic Theory and Policy (3)
- ECO 502 Microeconomic Theory and Policy (3)
- ECO 508 International Trade (3)
- ECO 561 Economics of Multinational Enterprise (3)
- ECO 575 The Economics of Socialism (3)
- ECO 580 International Trade: Theory and Policy (3)
- ECO 581 The International Monetary System (3)
- ECO 585 Economics Growth and Development (3)
- ECO 586 Economic Planning (3)
- ECO 587 Case Studies in Economic Development (3)

Language Area: (10-12 semester hours)
 The following conditions apply to those with language proficiency:

1. Native English speakers with required graduate level proficiency in a foreign language must elect, in consultation with an adviser from the Department of Foreign Languages and Bilingual Studies, 10-12 hours of graduate credit in that language area.
2. Non-native speakers of English who have demonstrated English proficiency with a score of 80 or above on the Michigan Test (or equivalent) must complete ten (10) semester hours of ESL 642, 648 or 10-12 semester hours of French, German, or Spanish.
3. Non-native speakers of English who have demonstrated only the minimal English proficiency for admission to the Graduate School (Michigan Test score of 80 or equivalent) also will be required to take ESL 412 Academic English as a Second Language: Writing, ESL 416 Academic English as a Second Language: Listening and Speaking and/or ESL 420 Review of English as a Second Language (3-9 hours) in addition to ten (10) semester hours of ESL 642, 648 or 10-12 semester hours of French, German, or Spanish.

Cooperative Education: (3-6 semester hours) All students are required to complete a cooperative education position or an internship in a business firm, provided an appropriate position can be found. Major responsibility for finding an appropriate position rests with the student, working together with the

EMU Office of Cooperative Education. Students for whom placements cannot be found are asked to do an independent study or to take an appropriate course in substitution for the co-op placement.

International Cooperative Education Exchange: Qualified students may be placed in salaried, cooperative education traineeship positions in French, German or Spanish firms in those countries for a minimum of 16 weeks. The placements are competitive and are contingent upon available positions.

TEACHING ENGLISH TO SPEAKERS OF OTHER LANGUAGES

OBJECTIVES

Objectives of the program are to produce teachers who possess a knowledge of English perceived as a foreign language, a knowledge of foreign-language teaching and learning strategies, practical experience in applying theoretical knowledge and an awareness of the realities of the multicultural classroom.

ADMISSION REQUIREMENTS

1. Meet Graduate School degree admission requirements.
2. At least one year's college study of a foreign language, or the equivalent as determined by the Department of Foreign Languages and Bilingual Studies.
3. At least two letters of recommendation which give evidence of the applicant's promise of success in working with speakers of other languages and working in multicultural settings.
4. Non-native speakers of English must submit an official TOEFL score of 520 or above or a Michigan Test score of 80 or above.

Conditional admission may be granted to students who do not meet the above undergraduate course requirements. These students will be required to take courses for undergraduate credit to make up this deficiency; this work will be in addition to regular program requirements.

PROGRAM REQUIREMENTS

Core Curriculum (19 semester hours)

- CEN 410 Teaching English to Speakers of Other Languages (3)
- CEN 500 Observation and Analysis of ESL Programs (1)
- CEN 501 Theoretical Foundations of Second-Language Pedagogy (3)
- CEN 502 A Pedagogical Grammar and Phonology of ESL (3)
- CEN 520 Foreign Language Testing and Evaluation (2)
- CEN 591 Special Topics (2)
- CEN 688 TESOL Practicum (3)
- CEN 694 TESOL Seminar (2)

Restricted Electives (six semester hours)

At least two of the following:

- ENG 426 Topics in Linguistics (3)
- ENG 501 American English: Regional and Social Dialects (3)
- ENG 503 Rhetoric and Advanced Composition (3)
- ENG 510 Comparative Linguistic Analysis (3)
- ENG 525 Advanced English Syntax (3)
- ENG 596 Teaching Composition on the College Level (3)

Cognates (six semester hours)

At least six semester hours of other appropriate courses approved by the graduate adviser.

GRADUATION REQUIREMENTS

Non-native speakers of English must present an official score of 85 on the Michigan Test or 560 on the TOEFL as a requirement for graduation from the program.

FOREIGN LANGUAGE AND BILINGUAL STUDIES COURSES

IN ENGLISH

CEN 500 Observation and Analysis of ESL Programs. One sem hour

Observations of ESL classes in varied contexts and practice in using different types of observation instruments. Seminar topics focus on ESL classrooms noting differences for ESL classrooms.

CEN 501 Theoretical Foundations of Second-Language Pedagogy. Three sem hours

Overview of the principal theories of language description, language learning, and language use, with emphasis on those factors which affect second-language acquisition and learning.

CEN 502 A Pedagogical Grammar and Phonology of ESL. Three sem hours

Examines the structure and sound systems of American English as it applies to the teaching and learning of English as a foreign language. Emphasizes practical aspects of usage.

Prereq: CEN 501 Theoretical Foundations of Second-Language Pedagogy or departmental permission.

CEN 511 Practical Application of Linguistics to ESL. Two sem hours

The linguistic principles and theories of adult ESL with discussion sessions on their practical application. This course provides the ESL teacher with a basic introduction to linguistics as a precursor to the solution of practical problems.

CEN 520 Foreign Language Testing and Evaluation. Two sem hours

Examines the role of testing; surveys types of tests; discusses the criteria of a good test; analyzes tasks that variously require listening, speaking, reading, writing and communicative competence; and provides practice in evaluating and constructing test items.

Prereq: CEN 501 Theoretical Foundations of Second-Language Pedagogy and CEN 502 A Pedagogical Grammar and Phonology of ESL.

CEN 590, 591, 592 Special Topics. One two and three sem hours

An intensive study of a specific topic to be determined by the instructor, field of specialization and student interest.

Prereq: Departmental permission.

CEN 688 TESOL Practicum. Three sem hours

Supervised practical experience in TESOL appropriate to the student's intended teaching setting. With the guidance of a trained ESL teacher, the practicum student will select appropriate materials and techniques to develop the necessary skills in the learners and will

then apply them in the classroom situations.

Prereq: CEN 501 Theoretical Foundations of Second-Language Pedagogy, CEN 502 A Pedagogical Grammar and Phonology of ESL and CEN 410 Teaching English to Speakers of Other Languages or concurrent enrollment in CEN 410.

CEN 694 TESOL Seminar. Two sem hours

Different topics are selected each semester for intensive study by advanced students. The course consists of review and discussion of contemporary issues in TESOL, based on research projects and review of the pertinent literature carried out by the students. Emphasis in seminar meetings on exchange of ideas and information developed in the research.

Prereq: Twelve hours of core requirements.

ESL 590, 591, 592 Special Topics. One, two and three sem hours

An intensive study of a specific topic to be determined by the instructor, field of specialization and student interest.

Prereq: Departmental permission.

ESL 642, 648 English as a Second Language for Special Purposes: Business. Five sem hours each

A course for non-native speakers of English to improve their command of the English language for use in business. Emphasizes both oral and written communication skills, as well as vocabulary, grammar and pronunciation, in a business context.

FLA 590, 591, 592 Special Topics. One, two and three sem hours (Formerly FLA 539, 540, 541)

An intensive study of a specific topic to be determined by the instructor's field of specialization and student interest. Special Topics courses may be repeated for credit with department permission. *Not more than six hours of special topics may be used on a degree program.*

Prereq: Departmental permission.

FLA 611 Methods of Teaching Modern Language. Two sem hours (Formerly FLA 511)

The history, theory and techniques of modern language teaching.

Prereq: Departmental permission.

FLA 679, 680, 681 Special Topics.

One, two and three sem hours

An intensive study of specific areas of foreign language or literature, to be determined by the instructor's field of specialization and student interest. This course may be repeated for credit with departmental permission.

Prereq: Departmental permission.

FLA 688 Internship in Language and International Trade. Three sem hours (Formerly FLA 590)

Provides an opportunity for the graduate student to extend theoretical classroom learning through working experience in an appropriate setting. The Foreign Language and Bilingual Studies Department in cooperation with the College of Business will arrange and supervise suitable assignments in firms conducting international business. A minimum of 10 hours per week in the field will be supplemented by regular meetings with the faculty supervisors.

Prereq: Departmental permission.

FLA 695 Seminar in Bilingual-Bicultural Education. Three sem hours (Formerly FLA 596)

Each semester different topics are selected for intensive study by advanced students. The course consists of a review and discussion of contemporary issues in bilingual-bicultural education, following which students select areas for research. Emphasis in seminar meeting on exchange of ideas and information developed through the research. (Taught in Spanish/English.)

Prereq: Departmental permission.

FLA 697, 698, 699 Independent Study. One, two and three sem hours (Formerly 597, 598, 599)

Intensive study of a problem under the direction of a member of the graduate staff.

Prereq: Departmental permission.

IN FRENCH

FRN 523 Contemporary French Scene. Two sem hours

An interdisciplinary approach to French language, culture and literature. Material to be read in the original and to serve as a basis for class discussion in French. Assigned reading and oral reports.

Prereq: FRN 444 Advanced French Conversation or its equivalent.

FRN 592 Special Topics. Three sem hours (Formerly FRN 594)

An intensive study of a specific area of French language or literature, to be determined by the instructor's field of specialization and student interest. This course may be repeated for credit with departmental permission. *Not more than six hours of special topics may be used on a degree program.*

Prereq: Departmental permission.

FRN 610 Intensive French in Quebec. Six sem hours

An intensive summer course offered in Quebec Province. Instruction emphasizes improvement of listening comprehension and speaking skill. Various levels of instruction suited to student needs. Students live with French speaking families. *May be repeated for credit.*

FRN 616, 617 Reading French for Graduate Students. Three sem hours each (Formerly FRN 516, 517)

Structure, basic vocabulary and common idioms of French for reading proficiency.

FRN 620 French Grammar and Syntax. Three sem hours (Formerly FRN 520)

An advanced course in grammar and

FRN 620 French Grammar and Syntax. Three sem hours (Formerly FRN 520)

An advanced course in grammar and syntax. Intended to give a solid basis for oral and written expression and for the teaching of French.

Prereq: FRN 443 Advanced French Grammar and Composition or equivalent.

FRN 621 Advanced Conversation in French. Three sem hours (Formerly FRN 521)

A continuation of advanced conversation with emphasis on attaining fluency at all levels pertinent to professional and cultural needs. Discussions and oral reports on periodical literature. *The course may be repeated for credit.*

Prereq: FRN 444 Advanced French Conversation or equivalent.

FRN 646 French Economy and Business Practices I. Three sem hours

Advanced course in business communications, translation techniques and French business practices. Study of French economy, energy, industry, commerce, agriculture and services. Demographic and political trends. *In French.*

Prereq: FRN 620 French Grammar and Syntax and FRN 621 Advanced Conversation in French.

FRN 647 French Economy and Business Practices II. Three sem hours

Continuation of FRN 646 French Economy and Business Practices I. Study of French economy as it relates to the European economic community, the U.S., the East, the developing countries and the francophone countries. *In French.* Upon completion of this course, students are eligible to take language proficiency examinations, leading to the C.C.I.F. Diplomas. *Prereq: FRN 646 French Economy and Business Practices I or departmental permission.*

FRN 656 French for Science and Technology I. Three sem hours

A study of the language and technology of manufacturing processes, goods and services offered in three scientific and technical fields in French-based multinationals. Topics covered may include food industry, automobile mass transportation or energy. *In French.* *Prereq: Bachelor's degree or equivalent with a major/minor in French or departmental permission.*

FRN 657 French for Science and Technology II. Three sem hours

Continuation of the study of the language and terminology of manufacturing processes, goods and/or services offered by French-based multinationals. Topics may include electronics, computers, glass or robotics. *In French.* *Prereq: Bachelor's degree or equivalent with a major/minor in French or departmental permission.*

FRN 663 Medieval French Literature. Three sem hours (Formerly FRN 563)

A study of the chief literary movements of the Old and Middle French periods with representative texts in modern French versions. *In French.*

Prereq: Two courses in French literature at the 400 level or permission of the department.

FRN 664 Sixteenth-Century French Literature. Three sem hours (Formerly FRN 564)

A study of the chief literary movements and representative authors of the French Renaissance. *In French.* *Prereq: Two courses in French literature at the 400 level or departmental permission.*

FRN 679, 680, 681 Special Topics. One, two and three sem hours

An intensive study of a specific area of French language or literature, to be determined by the instructor's field of specialization and student interest. This course may be repeated for credit with permission. *Not more than six hours of special topics may be used on a degree program.* *Prereq: Departmental permission.*

FRN 692 Research Paper. Three sem hours

An intensive research into a specific area of French language or literature, to be determined by the instructor's field of specialization and student interest. This course may be repeated for credit with permission. *Prereq: Departmental permission.*

FRN 697, 698, 699 Independent Study. One, two and three sem hours (Formerly FRN 597, 598, 599)

Intensive study of a problem under the direction of a member of the graduate staff. *Prereq: Departmental permission.*

IN GERMAN

GER 610 Intensive German in West Germany. Six sem hours

An intensive summer course offered in West Germany. Instruction emphasizes improvement of listening comprehension and speaking skill. Various levels of instruction suited to student needs. Students live with German families. *May be repeated for credit.*

GER 620 Advanced German Syntax and Advanced Composition. Three sem hours

An advanced course in grammar, syntax and composition. Intended to give a

solid basis for oral and written expression.

Prereq: GER 443 German Syntax and Advanced Composition or equivalent or departmental permission.

GER 621 Advanced Conversation in German. Three sem hours

A continuation of advanced conversation with emphasis on attaining fluency at all levels pertinent to professional needs. The course may be repeated for supplementary credit. *Prereq: GER 444 Advanced German Conversation or equivalent or departmental permission.*

GER 646, 647 German Business Practices. Three sem hours each

The course teaches the correct usage of German economic and financial vocabulary and trains the students in the reading, writing and translating of German business communications of varying types. German language periodicals and journals are used. *Prereq: GER 443 German Syntax and Advanced Composition and GER 444 Advanced German Conversation.*

GER 656 German for Science and Technology I. Three sem hours

Study of specialized vocabulary and jargon used in selected fields of technology. The intent is to familiarize students with basic technical concepts and vocabulary that they may encounter in German industry. *Prereq: Undergraduate major/minor in German or departmental permission.*

GER 657 German for Science and Technology II. Three sem hours

Study of specialized vocabulary and jargon used in selected fields of technology. The intent is to familiarize students with basic technical concepts and vocabulary that they may encounter in German industry. *Prereq: GER 656 German for Science and Technology I or departmental permission.*

GER 679, 680, 681 Special Topics. One, two and three sem hours

An intensive study of a specific area of German language or literature, to be determined by the instructor's field of specialization and student interest. This course may be repeated for credit with

permission. *Not more than six hours of special topics may be used on a degree program.*
Prereq: Departmental permission.

GER 697, 698, 699 Independent Study. One, two and three sem hours

Intensive study of a problem under the direction of a member of the graduate staff.
Prereq: Departmental permission.

IN SPANISH

BIL 622 Teaching Hispanic Culture and Language. Three sem hours (Formerly FLA 622, FLA 522)

The techniques and materials for teaching the language and culture of Hispanic groups within the bilingual classroom. *A minimum of 24 hours of field experience in a bilingual classroom will be required. Not open to students on academic probation.*

BIL 623 Bilingual Education Public Policy in the U.S. Three sem hours

Study of the principal factors that influence bilingual education public policy formulation in the U.S., including federal and state legislation, federal court decisions, and the role of the mass media and bilingual communities.

BIL 624 Bilingual Education Theory. Three sem hours

Study of the principal theories that influence the design and implementation of bilingual instruction programs, with special emphasis on language, culture, neurolinguistics and pedagogy.

BIL 625 Bilingual Education Teaching Techniques. Three sem hours

This course will acquaint the student with and provide practice in the use of teaching techniques utilized in the teaching of content areas in bilingual classrooms. *A minimum of 24 hours of field work required.*

BIL 679, 680, 681 Special Topics in Bilingual Education. One, two and three sem hours

In-depth study of special areas in bilingual education of interest to practitioners and researchers. Subject matter will change from semester to semester. *May be repeated for credit. Not more than six hours of special topics may be used on a degree program.*
Prereq: Departmental permission.

SPN 519 Spanish Phonology. Two sem hours

A study of the articulatory basis of the sounds in Spanish. Drills on rhythm and intonation patterns, with practice and recordings in the laboratory.
Prereq: SPN 443 Advanced Spanish Composition or equivalent.

SPN 522 Stylistics. Two sem hours

The manner in which literary Spanish makes use of the means of expression available in the language.

Prereq: SPN 443 Advanced Spanish Composition.

SPN 524 The Spanish Language in the New World. Two sem hours

Acquainting the students with the Spanish language as it is used in several language areas of the American continent.

Prereq: SPN 481 History of the Spanish Language, SPN 620 Spanish Grammar and Syntax.

SPN 610 Intensive Summer Program in Spanish. Six sem hours

Intensive summer course offered in Mexico. Small-group (four to five students) language instruction, with many different instructional levels available. Students advance according to individual progress. Students live with Mexican families. *May be repeated for credit.*

SPN 620 Spanish Grammar and Syntax. Two sem hours (Formerly SPN 520)

The morphological and syntactical structure of Spanish.

Prereq: SPN 443 Advanced Spanish Composition or equivalent.

SPN 621 Graduate Spanish Conversation. Two sem hours (Formerly SPN 521)

A continuation of advanced conversation with emphasis on matters of diction and style. This course may be repeated for supplementary credit.
Prereq: SPN 444 Advanced Spanish Conversation or equivalent.

SPN 646, 647 Spanish for Business Practices. Three sem hours each

These courses teach the correct usage of Hispanic business and financial vocabulary, train the students in the reading, writing and translation of Spanish commercial documents, and familiarize students with relevant

bibliographical resources. *Cannot be taken for credit by students who received credit for SPN 446, 447 Business Spanish.*

Prereq: SPN 443 Advanced Spanish Composition, SPN 444 Advanced Spanish Conversation or departmental permission.

SPN 679, 680, 681 Special Topics. One, two, three sem hours

An intensive study of a specific area of Spanish language or literature, to be determined by the instructor's field of specialization and student interest. This course may be repeated for credit with permission. *Not more than six hours of special topics may be used on a degree program.*

Prereq: Departmental permission.

SPN 682 U.S. Dialects of Spanish. Three sem hours

A study of the dialects of Spanish spoken in the U.S., including their historical background and their modification through contact with English. *A minimum of 24 hours of field experience will be required.*
Prereq: An introductory course in linguistics.

SPN 697, 698, 699 Independent Study. One, two and three sem hours (Formerly SPN 597, 598, 599)

Intensive study of a problem under the direction of a member of the graduate staff.

Prereq: Departmental permission.

OTHER COURSES

These upper division undergraduate courses may also be taken for graduate credit in consultation with graduate adviser. No more than nine (9) hours of undergraduate coursework are permitted in the earning of any graduate degree.

CEN 410 Teaching English to Speakers of Other Languages (3)

FLA 421 History and Theory of Bilingual Education (3)

FLA 479 Special Topics (3)

FLA 490 Internship in Language and International Trade (3)

FRN 431 Studies in French Theatre (3)

FRN 432 Studies in French Poetry (3)

FRN 433 Studies in French Prose (3)

FRN 411, 422 Nineteenth-Century French Literature (3 each)

FRN 443 Advanced French Grammar
and Composition (3)
FRN 444 Advanced French
Conversation (3)
FRN 446, 447 Business French (3 each)
FRN 451, 452 Readings in French (1
and 2)
FRN 461, 462 Twentieth-Century
French Literature (3 each)
FRN 471, 472 Eighteenth-Century
French Literature (3 each)
FRN 481 History of the French
Language (3)
FRN 491, 492 Seventeenth-Century
French Literature (3 each)
GER 425 German Literature from the
Middle Ages to
the Baroque (3)
GER 426 German Literature from
1750-1850 (3)
GER 427 German Literature from
1850-1945 (3)
GER 428 German Literature from 1945
to the Present (3)
GER 443 German Syntax and
Advanced Composition (3)
GER 444 Advanced German
Conversation (3)
GER 451, 452 Readings in German
(1 and 2)
SPN 443 Advanced Spanish
Composition (3)
SPN 444 Advanced Spanish
Conversation (3)
SPN 445 Spanish-American
Prose (3)
SPN 448 Modern Drama (3)
SPN 449 Romanticism (3)
SPN 451, 452, 453 Readings in Spanish
(1, 2 and 3)
SPN 454 Modernism in Spanish
America (3)
SPN 455 The Generation of 1898 (3)
SPN 464 Drama of the Golden
Age (3)
SPN 465 Modern Novel (3)
SPN 463 Don Quixote (3)
SPN 471 Culture and Literature of the
Hispanic Groups in the U.S.
(3)
SPN 482 Language of Hispanic Groups
in the U.S. (3)

GEOGRAPHY AND GEOLOGY

Elwood J.C. Kureth
Department Head
203 Strong
487-0218

Robert Ward
Coordinator of Advising
213 Strong
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C. Nicholas Raphael
Coordinator of Advising
118 Strong
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Historic Preservation Program
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225 Strong
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The Department of Geography and Geology offers courses leading to the degree of Master of Arts and to the degree of Master of Science. Students who complete programs emphasizing man and his works receive the degree of Master of Arts; those whose programs stress physical geography, cartography and remote sensing, land use analysis and other aspects of environmental studies receive the Master of Science degree. The department also offers a Master of Science in historic preservation with concentrations in historic preservation planning, historic administration and heritage interpretation.

The department awards several graduate assistantships each year. A graduate assistantship stipend ranges from \$3,800-\$4,000. In addition, the University pays full tuition for 16 credit hours for each fiscal year of the assistantship, as well as registration and health service fees. The total package approximates \$5,580, depending whether you are a resident or nonresident of Michigan.

GEOGRAPHY PROGRAM

OBJECTIVES

The main objectives of the master's program in geography are to train individuals in the systematic, regional and technical aspects of the discipline.

In addition, the program offers opportunities for candidates to experience and participate in geographic research and its possible applications in the service of mankind and his environment. Upon completion of the master's degree, students in geography should be able to: participate in further study toward a doctoral degree; apply geographic methods to various professional research and development occupations; or teach in community colleges as well as secondary and elementary schools.

Geographers are also often employed by public and private agencies concerned with such problems as: urban and regional planning; foreign area analysis; resource assessment and management; agricultural, population and transportation surveys; cartographic research and design; recreational planning; marketing surveys and environmental impact assessment.

ADMISSION REQUIREMENTS

For admission to a master's degree program in geography, the student must have a bachelor's degree from an accredited institution; meet Graduate School degree admission requirements; and must have attained at least a 2.75 grade point average in his major field or in the equivalent of a geography minor during his last two undergraduate years, or must have scored at least 1,000 on the aptitude test of the Graduate Record Examination. Students who have majored in a field other than geography may be admitted to a program with the understanding that they must satisfactorily complete a minimum of 36 semester hours of undergraduate and graduate work in geography for the master's degree.

DEGREE REQUIREMENTS

The master's degree in geography may be completed by choosing option one (30 semester hours), option two (30 semester hours) or option three (30 semester hours). The differences between these options are discussed below.

All candidates for the master's degree must complete, within the total of their undergraduate and graduate study, at least two physical geography courses, at least two cultural (i.e. historical, human, or urban) geography courses, at least one regional geography course (not

including GEO 110 World Regions) and at least two courses from among cartography, quantitative methods and geographic field methods. GEO 675, GEO 677, GEO 694 are required of most master's candidates. GEO 500, 501 and 502 may not ordinarily be counted for credit toward a master's degree in geography.

All graduate students are required to pass a comprehensive oral examination as part of the master's degree program. The oral examination, conducted by a committee of the graduate faculty, will cover the field of geography and will emphasize the student's special field of interest.

Once the student has completed a minimum of 12 hours of graduate work in geography, he must formally declare to the graduate coordinator which of the options he plans to pursue.

The student who selects an option that does not include a thesis should be aware that, if a decision is made to ultimately pursue a doctoral degree, difficulty may be encountered in gaining entry into such programs. The student's selection of the option is subject to approval by the graduate coordinator. A student may, with the approval of the graduate coordinator, change from one option to another. Graduate credit earned more than six years prior to the date on which the degree is to be granted may not be applied to meet graduation requirements.

EXPLANATION OF MASTER'S OPTIONS

Option One:

Students whose life/career goals include research activity may elect to complete a thesis (representing six semester hours credit). The thesis topic and design are developed by the master's candidate with the advice of a departmental graduate faculty member. The completion of a thesis is especially recommended as a valid learning experience for those who intend to pursue further advanced degrees, but is also useful for those who seek employment with organizations that perform research functions.

Option one requires the completion of 30 semester hours as follows: 18-24 hours in geography, zero to six hours in approved cognates, and the remaining six hours in thesis credit.

Option Two:

This option is designed to serve individuals who may prefer additional course work and/or work experience as a substitute for thesis research and would benefit from an off campus internship experience. It also offers scope to in-service individuals (e.g., planners, soil scientists and others) to reorganize and apply the subject matter of their work experience to an EMU course under the supervision of a departmental graduate faculty member who evaluates the student's performance. Either of these supervised experiences may be accomplished by enrolling in GEO 687, 688 or 689 Internship in Geography-Geology, with approval of the graduate coordinator.

Of the 30 hour total, a maximum of six hours may be taken as cognate hours outside the department. A requirement of this option is the successful completion, while in residence at EMU, of two hours achieved through the composition of a paper of publishable quality. Graduate faculty in the department must be consulted in the initiation, design and completion of the paper. A graduate faculty member also will assess the completed paper.

Option Three:

This option is designed to enhance the career of practicing or prospective elementary and secondary teachers. Students may elect to develop their

teaching units under the supervision of three different faculty members. Each unit, worth two credit hours, shall be taken under the catalog number GEO 671, 672, 673 Geography Teaching Projects.

HISTORIC PRESERVATION PROGRAM

The Department of Geography administers an interdepartmental program in historic preservation. The program includes a 36 hour Master of Science curriculum in historic preservation or, as a Special Student, a five course curriculum granting a certification of completion and satisfactory academic performance. Students in the master's program may elect to pursue a general curriculum in historic preservation or to take their degrees in historic preservation with a concentration in either historic preservation planning, historic administration or heritage interpretation. This choice must be formally declared to the program coordinator by the time the student has completed 20 hours of graduate work in historic preservation.

OBJECTIVES

The master's curriculum emphasizes preparation for careers in historic preservation in a planning, administrative, historic museum or consulting capacity, while the certification curriculum is designed primarily for in-service planners and other individuals desiring to expand their understanding of the preservation field. The master's program includes work study, internship, cooperative education and field study opportunities, providing practical experience as an added dimension of the program.

ADMISSION REQUIREMENTS

Admission to the master's degree program in historic preservation is limited. The student must have a bachelor's degree from an accredited institution; meet Graduate School degree admission requirements; and must have attained at least a 3.0 grade point average in the major field during the last two undergraduate years. Students not meeting minimal Graduate School and departmental academic standards may, at the discretion of the program

coordinator, be admitted to "alternative status." Such students must achieve a "B + " overall grade point average (10 graduate hours) and in the hours taken within the department before formal degree admission to the program is granted. In addition to applying to the Graduate School, the applicant should obtain program application forms from the historic preservation coordinator and comply with the application procedures therein stipulated.

Certification curriculum applicants must have a bachelor's degree from an accredited institution and meet the Graduate School Special Student status requirements. Any student meeting these requirements may pursue the certification. The student should consult with the historic preservation coordinator once admitted to Special Student standing by the Graduate School.

DEGREE REQUIREMENTS

1. The completion of a minimum of 36 hours of approved course work beyond the bachelor's degree and such prerequisite courses (see below) as designated by the program coordinator. Prerequisite courses may be taken concurrently with degree courses.
2. The selection of a general course of study in historic preservation or an emphasis in either historic preservation planning, historic administration or heritage interpretation.
3. Completion of the following prerequisite courses:
 - (1) a one year survey of American history (HIS 223 History of the U.S. to 1877 and HIS 224 History of the United States, 1877 to Present or alternative graduate-level courses selected with the approval of the program coordinator);
 - (2) FA 429 History of American Architecture;
 - (3) GEO 332 Urban Geography (GEO 435 Urban Form and Function may be substituted for GEO 332);
 - (4) GEO 333 Settlement Geography;
 - (5) GES 401 Cartography or an approved course in architectural drawing.
4. Core requirements (15-20 hrs.):
GHP 530 Introduction to Historic Preservation

GEO 531 American Cultural Landscapes
 GHP 547 Problems in Architectural Interpretation
 GEO 548 American Folk Architecture
 PLS 520 Land Use and Preservation Law
 GHP 630 Documenting Historic Buildings
 FA, HEC, HIS 697, 698, 699 Independent Studies or GHP 690, 691, 692 Historic Preservation Project.

5. HIS 505 Historical Methods also is required of all students except those who already possess a master's degree in any subject which required writing a thesis or who have written a senior paper in history.
6. The remaining hours will be selected in conjunction with the program coordinator and should be compatible with the student's career objectives. If the student chooses to pursue one of the three preservation concentrations, at least 12 hours should be allowed to that end. Cooperative education, internship and historic preservation field project experiences are recommended options.

CERTIFICATION REQUIREMENTS

1. Required courses:
 - (1) FA 429 History of American Architecture
 - (2) GHP 530 Introduction to Historic Preservation
2. Three courses from the following:
 - GEO 435 Urban Form and Function
 - HIS 505 Historical Method
 - PLS 520 Land Use and Preservation Law
 - GEO 531 American Cultural Landscapes
 - GHP 533 Introduction to Historic Administration
 - GHP 534 Heritage Interpretation Methods
 - GHP 535 Heritage Interpretation Systems
 - GHP 536 Heritage Interpretation Programming
 - GHP 547 Problems in Architectural Interpretation
 - GEO 548 American Folk Architecture
 - GEO 570 Rural Planning and Preservation
 - GHP 572 Funding Preservation Projects

GHP 630 Documenting Historic Buildings
 GHP 631 Preservation Administration and Planning
 GHP 634 Heritage Interpretation Theory & Evaluation
 GHP 636 Historic Preservation Field Project
 GHP 680/681 Special Topics in Historic Preservation
 GHP 694 Seminar in Neighborhood Preservation

GEOGRAPHY COURSES FOR NON-SPECIALIZING STUDENTS

GEO 500 Resources and Nations. Two sem hours (Formerly GEO 507)

Patterns of distribution, production, consumption and adequacy of physical and cultural resources; different management characteristics and roles which resources play in the development of nations. *Applicable to the master's degree by petition only.*

GEO 501 Earth Science I. Two sem hours (Formerly GEO 508)

An introduction to the structure and composition of the earth, including volcanism, earthquakes and landforming processes. *Applicable to the master's degree by petition only.*

GEO 502 Earth Science II. Two sem hours (Formerly GEO 509)

Weather and climate and related phenomena such as natural vegetation and soils. *Applicable to the master's degree by petition only.*

REGIONAL GEOGRAPHY

GEO 510 The American Midwest. Two sem hours (Formerly GEO 569)

A regional treatment. The natural setting, the distribution of the people, the important occupations and the present and future problems in each of the several regions.

Prereq: A course in the geography of the U.S. or North America or departmental permission.

GEO 512 Middle America and the Caribbean World. Two sem hours (Formerly GEO 542)

A regional study of Mexico, Central America and the islands of the Caribbean. Conditions leading to the present

political upheavals in the area; an effort is made to chart future trends.

Prereq: A course in the geography of Latin America or departmental permission.

GEO 513 South American Lands. Two sem hours (Formerly GEO 541)

A regional study of the countries of South America; resources, people and national cultures are stressed.

Prereq: A course in the geography of Latin America or departmental permission.

GEO 515 Environmental Problems and Strategies in Europe. Two sem hours (Formerly GEO 555)

Causes and consequences of environmental degradation in Europe. Human landscape modification, dense population and political fragmentation as factors in creating serious pollution problems. European efforts to preserve and restore the environment.

Prereq: GEO 319 Geography of Europe or equivalent, or departmental permission.

GEO 516 Problems in Soviet Geography. Two sem hours (Formerly GEO 559)

Individual and group research in selected problems in the geography of the Soviet Union.

Prereq: A course in Soviet geography or departmental permission.

GEO 518 Problems of Sub-Saharan Africa. Two sem hours (Formerly GEO 574)

Individual research in selected problems in geography of Sub-Saharan Africa.

Prereq: A course in the geography of Africa or departmental permission.

HISTORICAL GEOGRAPHY

GEO 531 American Cultural Landscapes. Two sem hours

The diversity of the human geography of the United States will be explored in terms of representative cultural landscapes of selected regions. Historic characteristics of urban and rural landscapes in America will be analyzed by means of readings, audiovisual presentations and discussions.

GEO 532 Historical Geography of Michigan. Two sem hours (Formerly GEO 552)

Geographical changes and developments in Michigan from pre-colonial times to the present. The geography of the state in each of the important stages of its history.

Prereq: One geography course and one American history course or departmental permission.

GEO 541 Material Cultures: A Disciplinary Overview. Three sem hours

Introduces and examines material culture from the perspective of six or seven academic disciplines which make use of objects in their analysis of culture.

Major emphasis is given to American material culture. Classes meet at Greenfield Village, Henry Ford Museum, where students make use of the artifact collections to carry out one or more projects.

HUMAN GEOGRAPHY

GEO 544 Problems in Economic Geography. Two sem hours (Formerly GEO 649)

Research problems and techniques dealing with the production, distribution and consumption aspects of economic geography.

Prereq: A course in economic geography or departmental permission.

GEO 545 Studies in Political Geography. Two sem hours

Study and comparison of the factors important in the political geographies of several countries.

Prereq: A course in the geography of Europe or departmental permission.

GEO 546 Problems in Population Geography. Two sem hours

Readings, discussion and research of selected problems in population geography.

Prereq: GEO 361 Geography of Population or departmental permission.

GEO 548 American Folk Architecture. Two sem hours

Folk structures such as rural houses, barns, fences and covered bridges are analyzed as aspects of material culture and cultural landscape contributing to regional personality within the United States. Attention is given to old world antecedents, colonial development and diffusion of regional forms from their colonial hearths.

Prereq: GEO 531 American Cultural Landscapes or departmental permission.

GEO 549 Cultural Landscape Interpretation. Two sem hours

Principles of cultural landscape interpretation as well as the development of local interpretation keys are investigated. Analysis of cultural landscapes is carried out in lectures, field practice, discussion sessions and some student reports.

URBAN GEOGRAPHY

GEO 550 Problems in Urban Geography. Two sem hours (Formerly GEO 544)

Selected geographic problems: urban sprawl, deterioration of the urban environment, changing urban functions and others. Acquisition of analytical techniques and geographical insights.

Prereq: A course in urban geography or departmental permission.

GEO 552 Processes of Suburban Development. Two sem hours (Formerly GEO 586)

The evolution of suburbs, the evaluation of the suburban environment, land use change in proximity to cities and land use planning factors associated with suburban growth.

Prereq: An urban or regional planning course or departmental permission.

GEO 553 Urban and Regional Planning. Two sem hours (Formerly GEO 585 City and Regional Planning)

Philosophy, history, legal aspects and techniques of the planning process. Case studies illustrate the impact of planning on economic, social and political activities.

Prereq: An urban or regional planning course or departmental permission.

GEO 554 Urban and Regional Planning in Europe. Two sem hours

Historical background, current problems and future strategies of urban and regional planning efforts in Europe. Political, economic and cultural aspects of the planning process are considered.

Prereq: GEO 319 Geography of Europe, an equivalent course, or departmental permission.

GEO 555 Comprehensive Planning. Two sem hours

An integration of planning tools, data sources, forecasting and standards to produce a comprehensive plan that contains components on land use, transportation and capital improvements.

Prereq: GES 315 Land Use Planning or equivalent.

GEO 556 Zoning. Two sem hours

This course will prepare students to understand, interpret and critique a zoning ordinance and to become familiar with planned unit development and site plan review.

Prereq: GES 315 Land Use Planning or equivalent or departmental permission.

GEO 557 Community Development and Downtown Revitalization. Three sem hours

Explores current approaches to community development in the context of downtown commercial revitalization. Particular emphasis is given to the use of historic preservation planning as a strategy for downtown revitalization.

Components of a downtown preservation plan to be reviewed include history, urban design, architecture, economics, implementation and preservation law and public policy.

Prereq: GEO 553 City and Regional Planning or GHP 530 Introduction to Historic Preservation.

PHYSICAL GEOGRAPHY

GEO 560 Processes of Landform Development. Two sem hours (Formerly GEO 522)

Interrelations of climate, microclimate, vegetation, near-surface materials, soil formation and types of landforms in Michigan, emphasizing direct observation in the field and aerial photographs.

GEO 561 Physical Landscapes. Two sem hours

An examination of the processes involved in creating and modifying the earth's surface and the theoretical approaches used in examining the problems of selected landscapes.

Prereq: One course in physical geography, geology, or departmental permission.

GEO 562 Weather. Two sem hours

Aims at understanding the atmospheric processes which generate all weather, applies observations of weather elements to analysis of weather phenomena, concludes with experimental forecasting. One hour lecture and two hours laboratory per week. *Not open to students holding credit in GES 324 Weather and Climate.*

GEO 563 Climate. Two sem hours

Regional climates are assessed in terms of characteristic types and frequencies of weather, with emphasis on geographic and atmospheric causes of differences and variations. Data in a number of statistical and graphical forms are interpreted in evaluating and classifying climates. One hour lecture and two hours laboratory per week. *Prereq: GES 324 Weather and Climate or GEO 562 Weather.*

GEO 564 Common Rocks and Minerals. Two sem hours (Formerly GEO 529)

Materials and processes in the formation and distribution of important minerals and rocks. *Not open to students who have had GLG 229 Rocks of Michigan or its equivalent.*

GEO 565 Principles of Earth History. Two sem hours (Formerly GEO 530)

Relationship of geologic processes to the rock record of the earth, its relationship to the solar system, time, earth change and the succession of life. *Not open to students who have had GLG 161 Historical Geography or its equivalent.*

GEO 566 The New Earth Science. Two sem hours (Formerly GEO 510)

Study of planet Earth—its interior and surface—emphasizing the new theories of continental drift and sea floor spreading.

Prereq: A course in earth science or departmental permission.

GEO 567 Introduction to Coastal Environments. Two sem hours (Formerly GEO 531)

Description and analysis of the physical and biogeographical processes of the coastal ocean, Great Lakes and inland lakes. Distribution and origin of the coastal environments, natural and human modification of beach, river valley, estuary, marsh, delta and coral reef environments. Classroom demonstrations and field trips.

Prereq: Departmental permission.

GEO 568 Biogeographical Resources. Three sem hours (Formerly GEO 568, 528 Biogeography)

Natural ecological function and management of soils and agricultural areas, natural vegetation and timber harvest regions, as well as wildlife habitats. Worldwide trends in resource use. Resource allocation models.

GEO 570 Rural Planning and Preservation. Two sem hours

This course seeks to assist land use planners and rural preservationists by discussing planning techniques, cost-revenue analyses and policy alternatives. *Prereq: GEO 315 Land Use Planning, GHP 335 Historic Preservation, GHP 530 Introduction to Historic Preservation or departmental permission.*

GEOGRAPHICAL METHODS

GEO 571 Teaching of Social Studies. Two sem hours

Subjects included: selecting, securing, organizing, presenting and evaluating materials. *Not open to students who hold credit in GEO 348 Teaching of Social Studies in Elementary Schools.*

GEO 575 Interpretation of Aerial Photography. Three sem hours

Principles of interpreting black and white, color and color infrared photographs. Basic photogrammetric measurement. Laboratory exercises involving mapping, land use planning, en-

vironmental assessment and terrain analysis.

Prereq: Graduate level or departmental permission.

GEO 576 Photogeology. Two sem hours

An interpretation and analysis of geological and geomorphic features of the earth. Aerial photos and remote sensing images will be utilized to detect aggradational and degradational processes in nature.

Prereq: GEO 575 Interpretation of Aerial Photography or two courses in geology/physical geography.

GEO 578 Advanced Computer Mapping. Two sem hours

Students will modify existing programs and operate computers, digitizers, plotters and printers in direct mode to produce thematic and geographic information system maps. Four laboratory hours each week.

Prereq: GES 475 Computer Mapping and a course in basic programming or departmental permission.

GEO 579 Geographic Information Systems. Two sem hours

Use of computers for storing, displaying and manipulating spatial information. Principles of geocoding, data capture and data analysis. Applications include land capability, facilities management and locational analysis for land planning environmental assessment and historic preservation.

Prereq: A course in cartography or computer mapping.

GEO 580 Urban Environmental Management. Two sem hours (Formerly GEO 587)

Survey and evaluation of geologic, topographic, geomorphologic, hydrologic and atmospheric factors which potentially and actually have impact on urban development and environmental management.

Prereq: An urban or regional planning course or departmental permission.

GEO 581 Environmental Assessment and Planning. Two sem hours (Formerly GEO 532 Environmental Impact Statements)

Study of soil, hydrology, water resources and air quality in relation to environmental assessment, impact statements and land development. Emphasis on comprehending and in-

tegrating environmental data, including report preparation. *Not open to students with credit in GES 495 Environmental Impact Assessment.*

GEO 582 Remote Sensing of Earth Resources. Three sem hours (Formerly GEO 505)

Manual interpretation and microcomputer processing of various types of remote sensing imagery. Application of this technology to land use planning, environmental assessment, information systems and Third World development. *Prereq: An undergraduate course in aerial photo interpretation or remote sensing.*

GEO 583 Cartographic Design. Three sem hours

Emphasis is on developing map-making skills using a variety of instruments and techniques. Quality work is stressed to prepare for professional employment. *Not open to students who have had GES 401 Cartography or GES 402 Advanced Cartography.*

GEO 587 Cooperative Education in Geography and Geology. Three sem hours

A semester equivalent of full-time employment at a private firm, public agency or non-profit institution which provides an applied experience for the graduate student. Participating students must be recommended to the Cooperative Education Office by a departmental faculty member. A written report is required at the end of the employment period. Credit on the geology and geography programs is subject to departmental approval. *Offered on Credit/No Credit basis. Prereq: Graduate student status and enrollment in one of the department's graduate programs. Admittance by application only.*

GEO 590, 591, 592 Special Topics. One, two and three sem hours

An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times as long as different topics are covered. *Not more than six hours of special topics courses may be used on a degree program.*

GEOGRAPHY COURSES FOR ADVANCED GRADUATE STUDY

GEO 671, 672, 673 Geography Teaching Projects. Two sem hours each

Development of three teaching units for geography classes under supervision of one, two or three faculty members. *Prereq: Departmental permission.*

GEO 674 Internship Report. Two sem hours

A paper of publishable quality or a major professional report related to an internship experience will be written by the student and approved by two members of the graduate faculty. *Prereq: GEO 687 Internship in Geography-Geology.*

GEO 675 History of Geographic Thought. Two sem hours (Formerly GEO 670)

The main themes of geographic thought from ancient times to the present day; the evolution of ideas fundamental to modern American geography. Significant geographical journals and other basic information sources are identified and discussed. *Prereq: Departmental permission.*

GEO 676 Area Analysis. Two sem hours (Formerly GEO 660)

Advanced geography field research. A philosophy of field geography; selected problems concerned with industry, recreation, agriculture and commerce. *Prereq: Fifteen hours of credit in geography, including GEO 303 Field Geography, or departmental permission.*

GEO 677 Seminar in Methods and Research. Two sem hours (Formerly GEO 696)

Basic research techniques applicable to geography. Location and identification of source materials, statement and analysis of problems, and preparation and presentation of results of research. *Prereq: Departmental permission.*

GEO 680, 681 Special Topics. Two, three sem hours

An experimental course for subject matter not provided in other departmental offerings. The content will change from semester to semester. Students may elect this course several times as long as dif-

ferent topics are studied. Information on content can be obtained at department office. *Not more than six hours of special topics courses may be used on a degree program.*

Prereq: Departmental permission.

GEO 683 Field Studies in Michigan. Two sem hours (Formerly GEO 655)

The geographic and geologic environment: on-campus sessions and field trips include both subject matter and methodological concern. Write department for information on content. Offered as a two-week workshop in the summer session.

GEO 685 Geography Field Trips. Four sem hours (Formerly GEO 568)

Representative geographic regions in the area visited; significant geographic and geologic characteristics of each region. Students will have an opportunity to visit typical mining, forestry, agricultural, industrial and cultural enterprises of the regions. A written report is required.

GEO 687, 688, 689 Internship in Geography-Geology. Four, five and six sem hours

Supervised internship in some aspect of geography or geology which is of mutual interest to the student and the public or private agency that would "employ" the student. This experience is designed to integrate academic training with practical application. This course may be taken once only. *Prereq: Departmental permission.*

GEO 690, 691, 692 Thesis. One, two and three sem hours

An intensive study of a problem or problems under the direction of a faculty member. *Prereq: Departmental permission.*

GEO 694 Seminar in Geography. Two sem hours (Formerly GEO 596)

Research, reports and group discussions emphasizing the distinctive concerns and methodology of geography. The particular topic that is examined will vary from semester to semester. Students may elect this seminar several times as long as the topics studied are different. Information regarding the content of a particular seminar may be obtained at

the department office. *Not more than six hours of seminar courses may be used on a degree program.*

Prereq: Departmental permission.

GEO 697, 698, 699 Independent Studies. One, two and three sem hours (Formerly GEO 597, 598, 599)

An intensive study of a problem or group of problems under the direction of a University faculty member.

Prereq: Departmental permission.

HISTORIC PRESERVATION COURSES

These were formerly HP/GEO courses.

GHP 530 Introduction to Historic Preservation. Two sem hours

Survey of the growth of historic preservation in the United States. Identification of preservation techniques, and federal, state and private preservation agencies and legislation; values and objectives of preservation.

GHP 533 Introduction to Historic Administration. Three sem hours

A general introduction to the field of historical administration with emphasis on historical museums. Also, attention is paid to the operational concerns, problems and training requirements in a variety of other historical agencies.

GHP 534 Heritage Interpretation Methods. Three sem hours

An introduction to heritage site interpretation, including the role of the interpreter, visitor behavior, operational issues, practice in interpretive technique and exposure to the range of interpretive services.

GHP 535 Heritage Interpretation Systems. Two sem hours

Examines the interrelationships and interdependence of heritage interpretation program components at site, local, regional, national and international levels. System analysis, via case studies, of public and private interpretive operations.

GHP 536 Heritage Interpretation Programming. Three sem hours

Comprehensive frameworks for heritage interpretation programming will be created and utilized. Practice in the preparation and delivery of quality personal and non-personal interpretive ser-

vices for heritage site visitors.

Prereq: GHP 534 Heritage Interpretation Methods or GHP 535 Heritage Interpretation Systems.

GHP 547 Problems in Architectural Interpretation. Three sem hours

The course deals with problems in dating historic structures. Analyzation is based on style, construction methods and detailing. Students learn through slide lectures, field trips and term projects how to evaluate buildings for architectural significance.

Prereq: FA 429 History of American Architecture.

GHP 557 Community Development and Downtown Revitalization. Three sem hours

Explores current approaches to community development in the context of downtown commercial revitalization. Particular emphasis is given to the use of historic preservation planning as a strategy for downtown revitalization. Components of a downtown preservation plan to be reviewed include history, urban design, architecture, economics, implementation and preservation law and public policy.

Prereq: GEO 553 Urban and Regional Planning or GHP 530 Introduction to Historic Preservation.

GHP 572 Funding Preservation Projects. Three sem hours

Student is exposed to planning, implementation and follow-up documentation of various types of historic preservation grants. Course also includes discussions on endowments, wills, bequests and financial planning and development for historical agencies.

Prereq: GHP 530 Introduction to Historic Preservation or GHP 533 Introduction to Historical Administration, or departmental permission.

GHP 587 Cooperative Education in Cultural Resource Management. Three sem hours

A semester equivalent of full-time employment at a private firm, public agency or non-profit institution selected to provide the student with a paid work experience in historic preservation. Participating students must be recommended to the Cooperative Education Office by a departmental faculty member. A written report is required at the end of the employment period. Credit on the

historical preservation program is subject to departmental approval. *Offered on Credit/No Credit basis.*

Prereq: Graduate student status and enrollment in the historic preservation program. Admittance by application only.

GHP 590, 591, 592 Special Topics. One, two and three sem hours

An experimental course for subject material 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 covered. *Not more than six hours of special topics courses may be used on a degree program.*

GHP 630 Documenting Historical Buildings. Two sem hours

Lecture and practical experience in documenting the built environment. Techniques of architectural survey, researching the history and former occupants of a building and preparation of a National Register nomination. Student projects and possible field trips.

Prereq: GHP 530 Introduction to Historic Preservation and FA 429 History of American Architecture or departmental permission.

GHP 631 Preservation Administration and Planning. Two sem hours

Study of cultural resource management objectives, strategies and techniques, including specific practice in the preparation of various types of National Register nominations, Department of Interior tax certifications and a local historic district ordinance.

Prereq: GHP 530 Introduction to Historic Preservation and GHP 547 Problems in Architectural Interpretation.

GHP 634 Heritage Interpretation Theory and Evaluation. Two sem hours

Examines the theoretical basis for heritage interpretation. Review of current evaluation/research studies, exposure to methods of evaluating interpretive programs/services and practice in the design of interpretive evaluation projects.

Prereq: Two courses from GHP 534 Heritage Interpretation Methods, GHP 535 Heritage Interpretation Systems and GHP 536 Heritage Interpretation Programming.

GHP 636 Historic Preservation Field Project. Three sem hours

Specially arranged supervised field experiences and application of theoretical viewpoints to field problems in historic preservation.

Prereq: Departmental permission.

GHP 637 Historic Preservation Field Project. Six sem hours

Specially arranged supervised field experiences and application of theoretical viewpoints to field problems in historic preservation.

Prereq: Departmental permission.

GHP 679, 680, 681 Special Topics in Historic Preservation. One, two and three sem hours

An experimental course for subject material 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 covered. *Not more than six hours of special topics courses may be used on a degree program.*

GHP 687, 688, 689 Internship in Cultural Resource Management. One, two and three sem hours

Supervised internship in some aspect of historic preservation which is of mutual interest to the student and the public or private agency that would "employ" the student. This experience is designed to integrate academic training with practical application. *A maximum of two internships is allowed.*

Prereq: Departmental permission.

GHP 690, 691, 692 Historic Preservation Project. One, two and three sem hours

The student conceives his or her own idea for a preservation-related individual project. The student is responsible for the design or planning of the project and carrying it to completion.

Required of all historic preservation majors and represents the student's culminating experience prior to graduation.

Prereq: Departmental permission.

GHP 694 Seminar in Neighborhood Preservation. Two sem hours (Formerly GEO 693)

The viability and desirability of neighborhood preservation is discussed

and observed from the perspective of affected inhabitants and from the broader urban to national contexts.

Prereq: GHP 530 Introduction to Historic Preservation or departmental permission.

GHP 697, 698, 699 Independent Studies. One, two and three sem hours

An intensive study of a problem or specifically focused subject matter pertaining to the field of cultural resource management under the direction of a University faculty member.

Prereq: Departmental permission.

OTHER COURSES

These upper division undergraduate courses may also be taken for graduate credit. No more than nine (9) hours of undergraduate coursework are permitted in the earning of any graduate degree.

- GES 401 Cartography (3)
- GES 402 Advanced Cartography (3)
- GEO 423 Principles of City and Regional Planning (3)
- GLG 428 Optical Mineralogy (4)
- GLG 430 Petroleum Geology (3)
- GEO 432 Political Geography (3)
- GEO 433 Political Geography of the United States (3)
- GEO 435 Urban Form and Function (3)
- GEO 438 Industrial Location and Development (3)
- GLG 439 Economic Geology (3)
- GEO 440 World Food Systems (3)
- GEO 441 Transportation Geography and Planning (3)
- GLG 448 Subsurface Water Resource (3)
- GEO 450 Shorelands Management Analysis (3)
- GEO 470 Quantitative Methods in Geography and Geology (3)
- GEO 475 Computer Mapping (3)
- GEO 495 Environmental Impact Assessment (3)

HISTORY AND PHILOSOPHY

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The Department of History and Philosophy offers a Master of Arts degree in history. The department also coordinates an interdisciplinary Master of Arts in social science and a Master of Arts in liberal studies with a concentration in social science and American culture.

MASTER OF ARTS IN HISTORY

Program Objectives

The Master of Arts in history enables students to acquire both general and specific knowledge concerning the human past. The program features specialization and breadth in subject matter through the requirements pertaining to areas and fields. It also incorporates instruction in historiography and methodology as well as practice in doing research and writing history. Through the curriculum, students learn how to locate, evaluate, interpret, compile and present historical data drawn from primary and secondary sources. Thus, the Master of Arts in history helps students refine their understanding of the meaning and matter of history. The degree can serve as preparation for teaching on the secondary or junior college level, for positions in government or business or for further graduate work on the doctoral level.

Admission Requirements

In addition to meeting the Graduate School degree admission requirements, the applicant must present a minimum of 20 semester hours of undergraduate courses in history, with a grade point average of at least 2.5 for all undergraduate courses in history.

Program Description

The Master of Arts in history is awarded upon satisfactory completion of at least 30 semester hours of credit. This may include up to nine hours in approved upper division undergraduate courses.

For purposes of the degree requirements, the courses in history are divided into the following areas:

Area 1

United States

Area 2

Europe

Area 3

Other World Areas

There are three options under which the M.A. in history may be granted. One, Plan A, requires an oral or written examination; another, Plan B, the writing of a thesis; and the third, Plan C, is a local history option. The choice among these options must be made by the time candidates have completed at least 12 but not more than 19 hours on their programs.

Plan A (examination option)

Twenty-four to 30 hours of history courses carrying graduate credit, including:

1. a course in historical method (students entering the program without such credit will register for HIS 505 during their first semester);
2. three courses in each of two areas*;
3. a course in historiography;
4. electives.

An examination, oral or written at the student's option, in each of the two areas of concentration. The scope, nature and method of examination shall be determined by each examiner in consultation with the student.

Zero to six hours of cognate courses chosen in consultation with the graduate adviser.

*Students with records of superior upper division undergraduate performance in these areas may be permitted to substitute elective hours for some or all of these requirements. *The approval of the graduate adviser is required.*

Plan B (thesis option)

Eighteen to 24 hours of history courses carrying graduate credit, including:

1. a course in historical method (students entering the program without such credit will register for HIS 505 during their first semester);
2. three courses in each of two areas**;
3. a course in historiography;
4. electives.

Six hours of directed research concluding with the completion of a thesis program (project). The thesis will be read and accepted by three professors, one of whom will be the director.

Zero to six hours of cognate courses chosen in consultation with the graduate adviser.

**Students with records of superior upper division undergraduate performance in these areas may be permitted to substitute elective hours for some or all of these requirements. *The approval of the graduate adviser is required.*

Plan C (local history option)

Twenty-four to 26 hours of history courses carrying graduate credit including:

1. all of the following: HIS 505, 530, 533, 688;
2. one of the following: HIS 482 The Age of Washington and Jefferson, HIS 538, 541, 583, 584, 585;

3. one of the following: HIS 414 The Automobile Industry and Modern America, HIS 463 United States Labor History, HIS 464 History of the Old West, 1540-1890, HIS 466 History of Indians in the United States, HIS 525, 531, 535, 687, 689, 697, 698, 699;
4. electives from 2. and 3. above.

A thesis; or an oral or visual presentation such as tape recorded material or slides, resulting from original scholarly investigation and accompanied by a written component of at least 50 pages.

Four to six hours of cognate courses from one cognate area (e.g., historic preservation) or topic (e.g., musical theater) chosen in consultation with the graduate adviser.

MASTER OF LIBERAL STUDIES IN SOCIAL SCIENCE AND AMERICAN CULTURE

The Master of Liberal Studies degree program is a relatively new concept in graduate education. The primary purpose of the program is to offer a graduate degree program that is interdisciplinary in design and nonprofessional in orientation. The M.L.S. student will find that this program fosters individual inquiry and offers a number of diverse opportunities for educational development.

Program Objectives

The Master of Liberal Studies in social science and American culture is an interdisciplinary degree which is administered through the Department of History and Philosophy. The degree program draws upon courses in the Departments of History and Philosophy, Economics, Music, Sociology and Anthropology, Political Science, Geography, English Language and Literature, Art, Communication and Theatre Arts, Teacher Education, Foreign Languages and Bilingual Studies and Interdisciplinary Technology. The program leading to the degree is a highly flexible one, and is designed to allow students to become familiar with a wide range of American culture. It should be helpful to those students seeking employment in business, industry or government at local, state and federal levels. Persons already employed should find this

course of study useful in assisting them in their professional advancement. The program should also provide preparatory training for those desiring to teach at the secondary, junior college or community college level.

Admission Requirements

Applicants for the M.L.S. must have completed a bachelor's degree, but no particular field or major is required.

Applicants must meet both the undergraduate grade point average for admission and the grade point average for graduation established by the Graduate School.

If the applicant does not meet the requirements for regular admission, the requirements for conditional admission of the department of the primary concentration are to be followed. Alternative admission also is available to those students who cannot meet the conditional admission requirements.

In order to facilitate course scheduling and field placements, prospective students are strongly encouraged but not necessarily required to begin their program of study during the fall semester.

Program Description and Requirements for the Degree

The degree will be awarded upon satisfactory completion of 30 hours of courses approved for graduate credit. These may include a maximum of nine hours in approved 400 level undergraduate courses. The program requirements are as follows:

1. A primary concentration of at least 12 semester hours in American history. *No less than six of these semester hours must be in courses numbered 500 or above.*
2. Two complementary concentrations totaling at least 12 semester hours selected from no less than two of the following departments: Economics, Sociology and Anthropology, Political Science, Geography, English Language and Literature, Art, Music, Communication and Theatre Arts, Teacher Education, Foreign Languages and Bilingual Studies and Interdisciplinary Technology. No less than four hours can be taken in each department.
3. Options:
 - a. *Twenty-four* hours of courses

approved for graduate credit as noted in one and two above, plus *three* hours of electives in approved courses in departments participating in the program, and a *three* hour independent study. A two hour integrated examination (oral or written) in American culture will be administered by a committee of at least two professors selected from departments involved in the student's program.

- Total credits*.....30
- b. *Twenty-four* hours of courses approved for graduate credit as noted in 1. and 2. above, plus *three* hours of electives in approved courses in departments participating in the program, and a creative, scholarly or pedagogical special project for *three* hours of credit. The special project must be supervised by a committee of at least two professors selected from departments involved in the student's program.

- Total credit hours*.....30
- c. *Twenty-four* hours of courses approved for graduate credit as noted in 1. and 2. above and a thesis for *six* hours of credit. The thesis must be in some aspect of American culture related to the student's course work and must demonstrate that the student has an integrated knowledge of American life and thought. The thesis committee must consist of at least two professors selected from departments involved in the student's program.

Total credit hours.....30

Departments and courses which constitute the Master of Liberal Studies in social science and American culture are listed below.*

Department of History

- HIS 414 The Automobile Industry and Modern America
- HIS 425 The United States from 1917 to 1945
- HIS 426 The United States Since World War II
- HIS 463 United States Labor History
- HIS 464 History of the Old West, 1540-1890
- HIS 465 United States Constitutional History
- HIS 466 History of Indians in the United States

- HIS 468 The American Mind to the Civil War
 HIS 469 The American Mind Since the Civil War
 HIS 482 The Age of Washington and Jefferson
 HIS 531 Studies in Black History
 HIS 533 Studies and Techniques in Local History
 HIS 535 Studies in the History of the Family in the United States
 HIS 538 Studies in Colonial American History
 HIS 541 The United States, 1825-1860: Ferment and Reform
 HIS 583 Studies in the Civil War and Reconstruction
 HIS 584 Studies in the Gilded Age
 HIS 585 Studies in 20th-Century U.S. History
 HIS 586 United States in World Politics

Department of Economics

- ECO 460 Industrial Organization
 ECO 501 Macroeconomic Theory and Modern Policy
 ECO 502 Microeconomic Theory and Policy
 ECO 522 Collective Bargaining
 ECO 524 White Collar and Public Employee Unionism
 ECO 551 State and Local Government Finance
 ECO 562 Government and Business

Department of Sociology and Anthropology

- SOC 444 The Sociology of Sex Roles
 SOC 502 Racial and Cultural Minorities
 SOC 503 The Family as an Institution
 SOC 610 Theories of Criminal Behavior
 SOC 611 Sociology of Crime and Its Correction

Department of Political Science

- PLS 456 Criminal Law I
 PLS 510 Modern Public Administration
 PLS 565 Studies in State and Local Government
 PLS 645 Intergovernmental Relations

Department of Geography

- GEO 423 Principles of City and Regional Planning
 GEO 431 Historical Geography of the United States
 GEO 433 Political Geography of the United States

- GEO 510 The American Midwest
 GHP 530 Introduction to Historic Preservation
 GEO 531 American Cultural Landscapes
 GEO 532 Historical Geography of Michigan
 GEO 548 American Folk Architecture
 GEO 550 Problems in Urban Geography
 GEO 552 Processes of Suburban Development
 GEO 533 City and Regional Planning
 GEO 567 Introduction to Coastal Environments
 GEO 570 Rural Planning and Preservation
 GHP 694 Seminar in Neighborhood Preservation

Department of English Language and Literature

- LIT 401 Modern American and British Poetry 1914 to Present
 LIT 409 The Development of American Literature
 LIT 410 Modern American Literature
 ENG 501 American English: Regional and Social Dialects
 LIT 523 Realism and Naturalism in the American Novel
 LIT 525 Henry James
 LIT 526 The Harlem Renaissance and Beyond
 LIT 568 Whitman and Dickinson
 LIT 569 The American Renaissance: 1830-1860
 LIT 576 Studies in 20th-Century American Fiction
 LIT 577 Twentieth-Century American Poetry

Department of Music

- MUS 504 America's Music
 MUS 642 History and Philosophy of Music Education

Department of Art

- FA 429 History of American Architecture

Department of Communication and Theatre Arts

- CTA 446 Contemporary Problems in Telecommunications
 CTA 537 Mass Communications
 CTA 562 American Theater History

Department of Teacher Education

- SFD 572 History of American Education

- SFD 602 Progressivism in American Education
 SFD 673 Black Experience and American Education

Department of Foreign Languages and Bilingual Studies

- FLA 421 History and Theory of Bilingual Education

Department of Interdisciplinary Technology

- IDT 500 Introduction to the Study of Technology
 IDT 501 History of Technology
 IDT 602 Contemporary Issues in Technology

*Graduate level *special topics courses* which offer content in American culture may also be used on the M.L.S. program.

MASTER OF ARTS IN SOCIAL SCIENCE

Program Objectives

This degree program is an interdisciplinary effort among the Departments of Economics, Geography, History, Political Science and Sociology and Anthropology, coordinated through the Department of History and Philosophy. Students in the program take courses in at least three of the five departments.

Because the Master of Arts in social science is interdisciplinary and does not require heavy specialization, it is responsive to individual interests and curricular needs. The program can offer greater expertise to social studies teachers in the elementary and secondary schools. Students with career interests in business or government service can acquire the deeper knowledge and broader perspective that stem from graduate work in social science. Beyond career or professional considerations, the program offers a fuller understanding of the social, cultural, political, economic and geographic factors that have shaped the past and present human experience.

Admission Requirements

In addition to meeting the Graduate School admission requirements, the applicant must present a minimum of

30 semester hours of undergraduate courses in social science, with a grade point average of at least 2.5 in all undergraduate courses. Two letters of recommendation from former instructors and/or employers must also be submitted.

Alternative admission may be granted to those students not meeting the above requirements who show promise. Students who are admitted under alternative admission must maintain a "B + " average to be granted degree admission. A maximum of 12 credit hours earned as an alternate admission may be applied toward the M.A. degree.

Program Description

The Master of Arts in social science is awarded upon satisfactory completion of at least 30 semester hours of credit. This may include up to nine hours in approved upper division undergraduate courses. The courses must be distributed as follows:

1. A concentration of 12 semester hours in one of the following disciplines: economics, geography (from those geography courses classed as social science), history, political science (one course from each of three groups, as specified by the department) or sociology/anthropology. At least six of these hours must be in 500 or 600 level courses.
2. Twelve semester hours to be selected from at least two of the disciplines other than the field of concentration.
3. Six elective semester hours of graduate work. The elective hours may be social sciences or any other graduate courses offered by the University.

Advising

In addition to the specific requirements mentioned above, it should be noted that degree candidates must satisfy all of the general requirements of the Graduate School.

Newly-admitted students should arrange an early conference with the graduate adviser, in order to plan their programs in detail.

All course elections must be approved by the graduate adviser prior to registration each semester.

HISTORY COURSES

Graduate courses (open to candidates for the M.A. in history or social science, and to students from other disciplines who wish to take cognate hours in history).

AREA 1: UNITED STATES

HIS 530 Urban Communities in U.S. History. Three sem hours

A study of the economic, spatial, physical, social and political structure and development of urban communities in the U.S. from the pre-industrial era to the present.

HIS 531 Studies in Black History. Three sem hours

Selected major developments in the history of black Americans from 1619 to the present.

HIS 533 Studies and Techniques in Local History. Three sem hours (Formerly HIS 533 Studies in Michigan History)

Topics drawn primarily from the history of southeastern Michigan and the surrounding areas will be used to illustrate the nature of local history, the sources that can be used in its study and the ways in which this study can provide insight into developments of greater scope.

Prereq: HIS 505 Historical Method or permission of the department.

HIS 535 Studies in the History of the Family in the United States. Two sem hours

The study of a significant issue or problem in the history of the family in the United States. The topic will vary from semester to semester.

HIS 538 Studies in Colonial American History. Two sem hour

Colonial American political, economic and social institutions; current scholarship and interpretation.

Prereq: HIS 223 American History to 1877 or permission of the department.

HIS 541 The United States, 1825-1860: Ferment and Reform. Two sem hours

An intensive study of the reform movements of the era. Special emphasis is given to women, utopianism, anti-

slavery, immigration, education, temperance, religion and the asylum.

Prereq: HIS 123 Major Trends in U.S. History or HIS 223 U.S. History to 1877 or permission of the department.

HIS 583 Studies in the Civil War and Reconstruction. Three sem hours

Major problems of interpretation in the period from 1850 to 1877.

HIS 584 Studies in the Gilded Age. Two sem hours

The United States moving into a modern phase after the Civil War, leaving behind the old frontier and the blacksmith economy to enter an era characterized by factories, large cities, a race for colonies and socio-political unrest.

HIS 585 Studies in 20th-Century U.S. History. Two sem hours

Study of selected topics in the history of the United States from 1900 to the present. Topics may vary from semester to semester.

Prereq: One course in U.S. history or permission of the department.

HIS 586 United States in World Politics. Two sem hours

American foreign policy in the 20th century, the nation's transition to great-power status and its adjustment to the demands of that role.

AREA 2: EUROPE

HIS 511 Studies in Ancient History. Two sem hours

Intensive study of selected topics in classical Greek and Roman history during the period 500 B.C.-A.D. 600.

HIS 514 Studies in Renaissance and Reformation History. Three sem hours

An examination of major Renaissance and Reformation issues and developments in their historical setting.

Prereq: HIS 330 Europe in the Renaissance and Reformation or permission of the department.

HIS 515 Studies in Medieval History. Three sem hours

Intensive study of selected topics in European history during the period 300-1300.

HIS 517 Historical Background of Modern Britain. Two sem hours

The history of Great Britain from 1815 to the present with primary emphasis on institutional development. Political, economic, social and imperial problems will be examined, and Great Britain's role in today's world will be assessed.

HIS 518 Studies in Recent German History. Two sem hours

World War I, the Weimar Republic, the rise of National Socialism and the National Socialist state, World War II and contemporary Germany.

Prereq: HIS 338 German History Since 1815 or permission of the department.

HIS 520 French Revolution and Napoleon, 1774-1815. Three sem hours

A study of the French Revolution and its Napoleonic aftermath. Emphasis is placed upon an understanding of the revolutionary movement, interpretation and significance for the future.

Prereq: HIS 427 Europe from Absolutism to Revolution 1648-1815.

HIS 522 Studies in 20th-Century Europe. Three sem hours

Topics in 20th-century European history selected from the following examples: the World Wars, European communism, the fascist experience, the crisis of European democracies, the Cold War, political reconstruction and economic recovery, post-war social and cultural change.

HIS 547 Nineteenth Century Ideological Background of the Russian Revolution. Three sem hours

Russian thought from the accession of Nicholas I (1825) until the Bolshevik revolution. Major themes to be treated are the Slavophiles and Westernizers, socialism, anarchism, nihilism, populism, liberalism and conservatism.

Prereq: One course in modern European history or permission of the department.

HIS 548 History Travel-Study Tours. Two sem hours

Representative areas with significant historical background. *May be taken more than once, but only two hours of such credit may be applied towards any one degree program.*

HIS 550 Twentieth-Century Russia. Two sem hours

Political, diplomatic, social and cultural developments in Russia from 1894 to the present.

AREA 3: OTHER WORLD AREAS

HIS 510 Studies in the History of Religion. Two sem hours

Broad topics in one or more religious traditions, usually Hinduism, Buddhism, Judaism, Christianity or Islam. The current topic will be announced in the time schedule.

Prereq: One course in history, preferably history of religion, or departmental permission.

HIS 525 Technology, Social Change and the Role of Women. Three sem hours

This course will examine the nature and origins of technology, the influence of its historical development from classical to modern times on women in the United States and Europe, and problems stemming from current technological advance.

HIS 543 Nationalism and Modernization in the Middle East and North Africa. Three sem hours

The development of nationalism and modernization in the Middle East and North Africa from World War I to the present; political and social changes occurring in this developing area.

Prereq: HIS 341 Middle Eastern History, 1798 to Present, HIS 342 North Africa, 1798 to Present, or permission of the department.

HIS 555 Studies in Far Eastern History. Two sem hours

Study of selected eras and topics in Far Eastern history. The topic selected will be announced in the time schedule.

Prereq: One course in Far Eastern history, or permission of the department.

HIS 560 Studies in Latin American History. Two sem hours

An intensive investigation of selected political, economic, social and cultural topics in Latin American history. The specific topics and chronological coverage are announced in the class schedule.

Prereq: One course in Latin American history, or permission of the department.

SPECIAL COURSES

HIS 505 Historical Method. Three sem hours

This course encompasses training in research strategies appropriate to a variety of historical resources as well as instruction in the skills necessary for communicating the results of such research. A workshop approach offers discrete units in library and archive investigation, demographic and cartographic techniques, and oral and local history, culminating in a research paper.

HIS 591, 592 Special Topics in History. Two or three sem hours (Formerly HIS 593, 594)

Subject matter will change from semester to semester. Course may be repeated for credit, up to a limit of six hours.

HIS 687 Cooperative Education in History. Three sem hours

Four to six months of full-time employment in a business or industry chosen to provide practical experience in the student's major field. The cooperative education program consists of one or two work experiences alternated with full-time attendance at the University. *Prereq: Approval by Cooperative Education Office and departmental permission.*

HIS 688 Historiography. Two sem hours

A critical study of the writings, philosophy and influence of major historians. *Prereq: Fifteen hours of graduate credit in history.*

HIS 689 Local History Internship. Three sem hours

Supervised internship in local history, mutually agreeable to student, faculty adviser and internship agency. Content varies with student needs and interests and available placement opportunities. *May not be repeated for credit. Prereq: Permission of the department.*

HIS 690, 691, 692 Thesis. One, two and three sem hours

Intensive research into an historical problem and the preparation of a thesis consistent in substance and form with the standards of the historical profession. *Credit/no credit. Prereq: Departmental permission.*

HIS 697, 698, 699 Independent Studies. One, two or three sem hours (Formerly HIS 597, 598, 599)

An intensive study of a problem or group of problems under the direction of a University faculty member. A maximum of six hours may be applied toward a degree program. A maximum of three hours may be taken in any one semester or session. *Approval of department head or graduate adviser is required as first step in registration process.*

Other Courses for Credit toward the Master's Degree

Upper division 400 level undergraduate courses in history also may be taken for graduate credit and applied towards the degree program in history and social science. Note that a maximum of nine hours of such credit may be used in any one degree program. For information about undergraduate courses which may be taken for graduate credit, please consult the coordinator of advising.

MATHEMATICS

Donald R. Lick
Department Head
601 Pray-Harrold
487-1444

Kenneth Shiskowski
Coordinator of Advising
601 Pray-Harrold
487-1444

DEGREE PROGRAM OFFERED

The Department of Mathematics offers a graduate program leading to the Master of Arts degree in mathematics.

Program Objectives

1. To develop a greater competence in mathematics or related areas beyond that attained at the undergraduate level.
2. To improve pedagogical competence in the teaching of mathematics.
3. To provide preparation for further study of graduate work beyond the master's level in mathematics or mathematics education.
4. To strengthen the mathematical background of those who require analytical and quantitative skills in their professions.
5. To meet the needs of teachers pursuing continuing education.
6. To provide opportunity for research in mathematics and mathematics education.

Admission Requirements

The Graduate Advisory Committee of the department will consider admission to the program after assigning each student to an adviser. The requirements for admission to the program are:

1. Meet Graduate School degree admission requirements.
2. A strong undergraduate major in mathematics comparable to that offered at Eastern Michigan University. Students without such a major may be admitted to the program after meeting requirements specified by the Graduate Advisory Committee.

Degree Program Description and Graduation Requirements

The Master of Arts degree in mathematics requires a minimum of 30 semester hours of credit beyond the bachelor's degree to be distributed with the approval of the Graduate Advisory Committee, as follows:

1. Three required courses of basic mathematics:
MTH 411 Modern Algebra with Applications or equivalent.
MTH 416 Linear Algebra or equivalent.
MTH 420 Introduction to Analysis or equivalent.

Students with undergraduate credit in any or all of these courses will substitute approved mathematics electives for these hours.

2. A minimum total of four hours of electives from at least two of the following three groups:
 - a) MTH 514 Theory of Fields, MTH 518 Theory of Groups.
 - b) MTH 524 Complex Analysis, MTH 526 Real Analysis.
 - c) MTH 471 Probability and Statistics II, MTH 573 Applied Statistics.
3. One of the following options is required and to be selected by the student:
 - a) Four hours of thesis research. Additional thesis hours may be taken but will not replace the requirements of items 1, 2, 4 and 5 under this section. Before the start of their thesis research, students must submit to the department head a request to form a thesis committee. The committee will be made up of three faculty members of the Mathematics Department. The chairperson, who will direct the research, is usually selected by the student and requires the approval of the department head. The chairperson in consultation with the student will then recommend, for department head approval, the other two committee members. At the conclusion of their research, students will submit to the department head the original thesis plus three (3) copies written in a manner suitable for publication and approved by the thesis committee.
 - b) One or two hours in research study. Students who elect this option will, with the approval of the department head, select a supervisor to direct the research study. A presentation is required at the conclusion of the course. The presentation, based on the research study, will be made to at least three approved members of the faculty in the department. A typed copy of the study written in good and acceptable form will be filed with the department.
4. Additional electives to make up a minimum of 24 hours with usually no more than six of these 24 hours to be in mathematics education courses. Thesis hours in mathematics education are not to be counted as part of this six hour limitation.
5. Cognate hours: zero to six in courses approved by the Mathematics Department. The number of such hours will be determined by the Graduate Advisory Committee based upon a student's background and need.

Approval by the Graduate Advisory Committee of each semester's courses is required and should be obtained before registering for classes.

Final recommendation for the degree by the Graduate Advisory Committee is required.

Students seeking a Master of Arts in mathematics and having an interest in computing and numerical analysis should call the Department of Mathematics for further information.

MATHEMATICS COURSES

MTH 500 Modern Mathematics

Content, K-6. Two sem hours

The modern mathematics required for teaching this subject in the elementary grades, K-6: set theory, logic, numeration systems, the real number system and geometry. *Not applicable to M.A. in mathematics program. Not open to students who have credit in MTH 501 New Topics in Modern Mathematics, K-8.*

MTH 501 New Topics in Modern Mathematics, K-8. Two sem hours

New topics in modern mathematics programs, the materials of various study groups, practical problems in teaching mathematics in grades K-8. *Not applicable to M.A. in mathematics program. Not open to students who have credit in MTH 500 Modern Mathematics Content, K 6.*
Prereq: Teaching experience or MTH 381 The Teaching of Mathematics, K-6.

MTH 503 Arithmetic Methods. Two sem hours

Current problems in teaching arithmetic. Evaluating pupil achievement; new topics. *Not applicable to M.A. in mathematics program.*
Prereq: Teaching experience or MTH 381 The Teaching of Mathematics, K-6.

MTH 506 Introduction to Mathematical Logic. Two sem hours

Propositional and first order predicate calculi and rules of deduction; application in mathematical systems and proofs.
Prereq: A minor in mathematics.

MTH 507 Theory of Numbers. Two sem hours (Formerly MTH 516)

Divisibility theory of integers, primes, theory of congruences, Fermat's Theorem, Wilson's Theorem, number theoretic functions, multiplicity, Möbius inversion formula, Euler's phi function.
Prereq: A minor in mathematics.

MTH 508 Foundations of Mathematics. Two sem hours

An introduction to axiomatic method, axiomatic set theory, transfinite arithmetic, logical paradoxes; their influence on modern conceptions of mathematics.
Prereq: A minor in mathematics.

MTH 511 Linear Algebra I. Two sem hours

Vector spaces, dimension, linear transformations, matrices and determinants with application to linear equations. Equivalence of matrices and an introduction to similarity theory.
Prereq: A minor in mathematics.

MTH 514 Theory of Fields. Two sem hours (Formerly MTH 614)

Finite fields, prime fields and their extensions, splitting fields, separability, irreducibility and Fundamental Theorem of Algebra.
Prereq: MTH 411 Modern Algebra with Applications or departmental permission.

MTH 518 Theory of Groups. Two sem hours

Definitions and examples, permutation groups, subgroups, cyclic groups, homomorphisms and isomorphisms, normal subgroups and factor groups, finitely generated abelian groups, Sylow Theorems and their applications.
Prereq: MTH 411 Modern Algebra with Applications or departmental permission.

MTH 520 The Real Number System. Two sem hours

A development of the real number system and a study of its properties.
Prereq: A minor in mathematics.

MTH 522 Fourier Analysis. Two sem hours

An introduction to Fourier series and their application to the solution of boundary value problems in the partial differential equations of physics and engineering.
Prereq: MTH 325 Differential Equations and MTH 420 Introduction to Analysis or equivalent.

MTH 524 Complex Analysis. Two sem hours

Complex numbers, analytic functions, elementary complex functions and mappings, Cauchy's Theorem and Cauchy's integral formula, maximum modulus principle, power series and calculus of residues.
Prereq: MTH 420 Introduction to Analysis or departmental permission. (Will allow MTH 526 Real Analysis or equivalent.)

MTH 526 Real Analysis. Two sem hours

Topology of the real line, sequences and series, metric spaces, real valued functions, functions of bounded variation, theory of differentiation and integration.
Prereq: MTH 420 Introduction to Analysis or departmental permission. (Will allow MTH 520 The Real Number System.)

MTH 536 Introduction to Digital Computers and FORTRAN. Two sem hours

A first course in computer programming designed for graduate students. The course concentrates on development of algorithmic problem solutions and their descriptions via flow charts and the FORTRAN IV language. The students will obtain experience using a digital computer by running several programs. *Not open to students who have credit in CSC 137 Introduction to Computer Programming or CSC 237 Computer Programming and Numeric Methods.*
Prereq: College algebra and departmental permission.

MTH 537 Introduction to Numerical Analysis. Two sem hours

Review of current computer language in use on campus, errors, evaluation of functions, root determination, numeric integration, interpolation, solution of ordinary differential equations and simultaneous linear equations. *Not open to students who have credit in MTH 436 Numerical Analysis.*
Prereq: A course in computer programming and MTH 223 Multivariable Calculus.

MTH 542 Non-Euclidean Geometry. Two sem hours

Foundations of geometry and historical development. A study of hyperbolic and elliptic plane geometries. These compared with parabolic plane geometry.
Prereq: A minor in mathematics.

MTH 543 Analytic Projective Geometry. Two sem hours

Projective geometry as defined on a vector co-ordinate space. The corresponding vector algebra is studied and then adapted to the affine plane and two of its subplanes; Euclidean and Space-Time.
Prereq: An undergraduate major in mathematics.

MTH 546 Graph Theory. Two sem hours

A study of undirected and directed graphs and their structural properties including connectivity and traversability. Associated matrices, groups and relations and applications to networks.
Prereq: A minor in mathematics.

MTH 548 Introduction to Differential Geometry. Two sem hours

Fundamental concepts of the theory of curves and surfaces in three-dimensional space. Applications. (*Offered as needed.*)
Prereq: An undergraduate major in mathematics.

MTH 550 General Topology. Two sem hours (Formerly MTH 528)

General theory of topological spaces, metric spaces, continuity, product and quotient spaces, separation axioms and compactness.
Prereq: MTH 420 Introduction to Analysis or departmental permission. (Will allow MTH 520 The Real Number System.)

MTH 560 Introduction to Optimization Theory. Two sem hours

An introduction to various aspects of optimization theory including linear and non-linear programming, primal-dual methods, calculus of variations, optimal control theory, sensitivity analysis and numerical methods.
Prereq: A major in mathematics or departmental permission.

MTH 571 Probability and Statistics. Two sem hours (Formerly MTH 574)

Probability, expectation, variance, co-variance, distribution functions, sampling theory and other topics. *Not open to students who have credit in MTH 370 Probability and Statistics I.*
Prereq: Fifteen hours of undergraduate credit in mathematics including a second course in calculus.

MTH 573 Applied Statistics. Two sem hours (Formerly MTH 577)

Point and interval estimation, hypothesis testing, sample mean and sample variance, analysis of variance, linear and non-linear regression, contingency tables, non-parametric methods, applications to the physical, biological and social sciences and to business and education.

Prereq: MTH 571 Probability and Statistics or MTH 370 Probability and Statistics I or departmental permission.

MTH 575 Statistical Problems. Two sem hours

Probability densities, mathematical expectation, multivariate distribution theory, sampling distributions, point and interval estimations, test of hypotheses, an introduction to the analysis of variance and statistical decision problems. *Not open to students who have credit in MTH 471 Probability and Statistics II.*
Prereq: MTH 571 Probability and Statistics or MTH 370 Probability and Statistics I or departmental permission.

MTH 581 Modern Mathematics Methods, K-6. Two sem hours

Effective techniques in presenting materials, planning class activities and creating good learning situations; current problems in a modern mathematics curriculum for grades K-6. *Not applicable to M.A. in mathematics program.*
Prereq: MTH 500 Modern Mathematics Content, K-6 or departmental permission.

MTH 582 Microcomputers for Educators. Two sem hours

Capabilities and applications of microcomputers in schools. Students will learn programming in the BASIC Language and will learn how microcomputers work. No microcomputer experience assumed. Intended for educators.
Prereq: Teaching experience.

MTH 584 Middle School Mathematics, Methods and Content. Three sem hours

Middle school mathematical content and contemporary ways of using materials and strategies to present the content. Topics include algebra, geometry, probability and statistics, number theory, logic and other general mathematics notions.
Prereq: Teaching experience in junior or middle school mathematics or 15 hours of undergraduate credit in mathematics or departmental permission.

MTH 585 Modern Mathematics Methods, Senior High School. Two sem hours

For students lacking an undergraduate high school methods course in mathematics. *Not applicable to M.A. in mathematics program. Not open to students who have credit in MTH 306 Teaching of High School Mathematics. (Offered as needed.)*
Prereq: A minor in mathematics.

MTH 587 Enriching Instruction in High School Mathematics. Two sem hours

New teaching aids and supplementary reading materials; subject matter usually not developed in standard texts (e.g., linear programming, principles of computers and advanced geometric constructions). Topics for accelerated high school classes.
Prereq: Teaching experience in high school mathematics.

MTH 588 High School Mathematics, Methods and Content. Three sem hours

Presents information and materials to broaden and deepen a secondary teacher's background in teaching mathematics. Topics include general mathematics, algebra, geometry, trigonometry and senior mathematics. Applications, strategies of presentation and teaching aids are discussed.
Prereq: A minor in mathematics or departmental permission.

MTH 589 Geometry for Secondary Teachers. Two sem hours (Formerly MTH 547)

Presents information and materials to broaden and deepen a secondary teacher's background in teaching of geometry. Foundations of geometry, modern geometry, non-Euclidean geometries and a little topology are studied.
Prereq: A minor in mathematics.

MTH 595 Workshop. Two sem hours
Usually not applicable to M.A. in mathematics program.
Prereq: Departmental permission.

MTH 601 Teaching Junior College Mathematics. Two sem hours (Formerly MTH 681)

Current problems in a junior college mathematics program. The role of algebra and trigonometry, elementary functions, analytic geometry, the

calculus and linear algebra; content and techniques of instruction. CUPM recommendations for a college program. (Not offered currently.)

Prereq: Departmental permission.

MTH 610 Rings and Ideals I. Two sem hours

Polynomial rings, ideals and homomorphisms, imbedding theorems, prime ideals, the radical, minimal and maximal prime ideals belonging to an ideal. (Not offered currently.)

Prereq: Any course in abstract algebra.

MTH 611 Linear Algebra II. Two sem hours (Formerly MTH 512)

The theory of finitely generated modules over a ring of polynomials, as applied to similarity theory; canonical forms for similarity. Scalar products, the dual space, Sylvester's Theorem and the Spectral Theorem.

Prereq: MTH 511 Linear Algebra I or MTH 416 Linear Algebra.

MTH 679, 680, 681 Special Topics in Mathematics. One, two and three sem hours (Formerly MTH 591)

A graduate level course in a specific area of mathematics, to be determined by the field of specialization of the instructor and the interest of the students.

Prereq: Completion of a minimum of 10 hours of graduate credit in mathematics and graduate GPA in mathematics of 3.3 or above, and departmental permission.

MTH 690, 691, 692 Research Study. One, two and three sem hours

Research in areas of mathematics or mathematics education under guided direction. Thesis or final paper dependent upon program option is required at the conclusion of the research work.

Prereq: Departmental permission.

MTH 697, 698, 699 Independent Studies. One, two and three sem hours (Formerly MTH 597, 598, 599)

A report on an approved subject in the field of mathematics, the history of mathematics or the teaching of mathematics, under the guidance of Mathematics Department staff.

Prereq: Completion of a minimum of 10 hours of graduate credit in mathematics and graduate GPA in

mathematics of 3.3 or above, and departmental permission.

OTHER COURSES FOR GRADUATE CREDIT

The following courses may also be elected for graduate credit; course descriptions may be found in the Undergraduate Catalog. No more than nine (9) hours of undergraduate coursework are permitted in the earning of any graduate degree. *Information about courses in mathematics not listed here may be obtained from the coordinator of advising, Dr. Kenneth Shiskowski.*

MTH 400 History of Mathematics (3)

MTH 403 Current Research in Elementary School Mathematics (3)

MTH 411 Modern Algebra with Applications (3)

MTH 416 Linear Algebra (3)

MTH 418 Applied Linear Algebra (3)

MTH 420 Introduction to Analysis (3)

MTH 425 Mathematics for Scientists (3)

MTH 436 Numerical Analysis (3)

MTH 471 Probability and Statistics II (3)

MTH 475 Applied Combinatorics (3)

MTH 477 Special Topics in Mathematics (2)

MUSIC

James B. Hause
Department Head
N101 Alexander Music Building
487-0244

Mary D. Teal
Coordinator of Advising
N-101 Alexander Music Building
487-0244

Concentrations leading to the Master of Arts degree are offered in music education, music literature, music theory-literature, performance, piano pedagogy and choral music. Programs are flexibly designed to meet varying student needs. The primary objectives are to improve performance and musicianship, teaching skills and analytical and research skills.

Programs consist of 10 hours of foundation courses in research techniques, music theory and literature; 14 hours of concentration in the student's field of interest; and six hours of cognate courses outside the Department of Music.

A final recital, thesis, composition with supporting paper, or special project is required in each degree program.

All music curricula are accredited by the National Association of Schools of Music.

ADMISSION

Application for admission should be made to the Graduate School, where undergraduate transcripts are evaluated. Transcripts should be forwarded to the Graduate School at the time of application. In addition, students wishing to major in performance should send a tape to the Department of Music or write for information on auditions. Admission to a graduate program in the Department of Music is granted to students who meet the requirements of both the Graduate School of Eastern Michigan University and the Department of Music. In addition to Graduate School requirements for degree admission, the department requires the applicant to have an undergraduate degree in music or its equivalent. Upon general admission to the department, additional auditions are necessary for applied music study or acceptance in a performance concentration.

Students who meet Graduate School requirements for admission but who do not meet all departmental requirements may be granted conditional admission. Conditions that must be met before degree admission is granted include: a) completion of all graduate placement examinations and auditions; b) completion of all deficiency courses and requirements; c) completion of MUS 601 Introduction to Graduate Studies; and d) completion of at least six credit hours of graduate study in music at Eastern Michigan University with a cumulative grade point average of 3.0 ("B") or better.

Upon admission to the Department of Music, each student is assigned an adviser who assists in planning a curriculum based on student needs and future plans. Placement examinations in theory-literature-history and performance are given each semester and students are expected to complete these tests before decisions on course elections are made. The results of the placement tests are used by advisers in determining the course needs of students. Students with deficiencies may be required to take remedial courses without graduate credit.

AUDITIONS AND PLACEMENT TESTS

Placement tests for admission to the graduate music program will be held in 1986-87 on the following dates:

Winter Semester 1986
February 13, 1986

Fall Semester 1986
November 18, 1986

Winter Semester 1987
February 13, 1987

Fall Semester 1987
November 17, 1987

Auditions are arranged with the adviser and area chairman.

In addition to regular tuition, students accepted for private music lessons will be assessed an applied music fee described under the section on tuition and fees.

COURSES OPEN TO GRADUATE MUSIC MAJORS

MUS 601 Introduction to Graduate Studies. Two sem hours (Formerly MUS 501)

An introductory course in scholarly research and writing which includes library orientation for the music researcher, basic types of music research, evaluation of basic source materials for music research, style for writing and documentation of scholarly research, organization of a bibliography.

MUS 617 Music Composition II. Two sem hours (Formerly MUS 518)

Original composition based upon techniques of the 20th century; composition of works of moderate length. *May be repeated for credit.*

Prereq: MUS 517 Music Composition I or equivalent.

MUS 618 Music Composition III. Two sem hours (Formerly MUS 519)

Original composition in larger forms with the intent of performance. *May be repeated for credit.*

Prereq: MUS 517 Music Composition I and MUS 617 Music Composition II or equivalent.

MUS 642 History and Philosophy of Music Education. Two sem hours

The study of the development of music education in the United States and the influence of philosophy upon this development.

Prereq: Departmental permission.

MUS 651 The General Music Class. Two sem hours (Formerly MUS 551)

An exploration of the place of music in the education of adolescents, including techniques and materials utilized in the general music class of the middle and junior high schools. Discussion of current trends in general education that affect the structure and place of the general music class in the secondary school curriculum.

MUS 652 Advanced Techniques and Materials for Developing the Vocal Music Program in the Elementary School. Two sem hours

An exploration of the latest trends, techniques and materials utilized in elementary school vocal and general music classes. Discussion of current practices in general education that affect the music program in the elementary school.

MUS 653 Advanced Techniques and Materials for Developing the Secondary School Vocal Program. Two sem hours

An exploration of the latest trends, techniques and materials utilized in middle, junior and senior high school vocal music. Both performance and non-performance types of classes are covered. Discussion of current practices in general education that affect the music program in the secondary schools.

MUS 654 Advanced Techniques and Materials for Developing the Secondary School Band Program. Two sem hours

Current trends in techniques and materials for the high school band.

MUS 655 Advanced Techniques and Materials for Orchestras in the Secondary Schools. Two sem hours

Selected problems and their solution pertaining to the improvement of the musical performance of the school orchestra. Major emphasis is placed on the string section and its problems.

MUS 658 Administration and Supervision in Music Education. Two sem hours (Formerly MUS 558)

An examination of the purposes and function of school music administration. Emphasis is placed on the role of the music supervisor as an educational leader in the areas of curriculum, business and personnel.

MUS 691 Thesis. Two sem hours

A substantial and original undertaking in scholarly research designed to reflect, focus and deepen the student's individual interests and to provide a culminating work leading to a master's degree in music.

Prereq: Departmental permission.

MUS 692 Final Project. Two sem hours (Formerly MUS 694)

A creative, analytical or pragmatic project of a substantial and original nature designed to reflect the student's individual interests and to serve as a culminating work leading to a master's degree in music. Final projects may be of several types such as lecture-recital, original composition with analytical paper, annotated bibliography or discography, survey, unit of study,

course outline. *May be repeated for credit.*

Prereq: Departmental permission.

MUS 694 Seminar. Two sem hours

Topics may be in some area of music education, theory, literature, history, musicology or performance. May serve for the development of research proposals, literature reviews, research techniques or other similar purposes. *May be repeated for credit with permission of adviser.*

Prereq: Departmental permission.

MUS 697, 698 Independent Studies. One and two sem hours (Formerly MUS 597, 598)

An intensive study of a program or group of problems under the direction of a University faculty member. *May be repeated for credit.*

Prereq: Departmental permission.

Performance Courses

AMU 601, 602, 603, 604 Applied Music—Performance. One, two, three and four sem hours

Open to performance majors and graduate students who completed an undergraduate concentration in performance. *May be repeated for credit.*
Prereq: Audition.

MUS 687 Graduate Recital. Two sem hours (Formerly MUS 689)

Required in partial fulfillment of the Master of Arts degree for those students concentrating in performance and for those students who qualify for and select recital as a culminating option. *Students must be enrolled in AMU 601/602/603/604 Applied Music concurrently.*

COURSES OPEN TO GRADUATE STUDENTS AND QUALIFIED SENIORS

MUS 504 America's Music. Two sem hours

The diversified styles of music made and continuously used by the people of the United States in terms of our historical cultural traditions.
Prereq: Music major or departmental permission.

MUS 510 Masterpieces of Music. Two sem hours

Promotes interest, enjoyment and understanding of some of the important works of great composers; importance of music as a factor in human experience and as a mode of thought. *Not open to students who have a major or minor in music.*

MUS 511 Survey of Harmonic Techniques. Two sem hours

Compositional and harmonic techniques and practices of major composers of the 18th, 19th and 20th centuries.

Prereq: MUS 202 Music Theory-Literature IV or equivalent.

MUS 513 Form and Analysis. Two sem hours

Structural principles and techniques through analysis of representative works of 18th, 19th and 20th centuries.

Prereq: MUS 202 Music Theory-Literature IV or equivalent.

MUS 514 Sixteenth Century Counterpoint. Two sem hours

Polyphonic techniques and forms based upon stylistic principles of the 16th century.

Prereq: MUS 202 Music Theory-Literature IV or equivalent.

MUS 517 Music Composition I. Two sem hours

The creative process in music through analysis of traditional and new music; original composition in small forms illustrating various techniques and media. *May be repeated for credit.*

Prereq: Departmental permission.

MUS 531 Renaissance Music. Two sem hours

Selected works representing the forms, styles and idioms of the 15th and 16th centuries.

Prereq: Music major or departmental permission.

MUS 532 Baroque Music. Two sem hours

Selected works representing some of the styles and idioms of the 17th century, and of the early and mid-18th century (Bach, Handel).

Prereq: Music major or departmental permission.

MUS 533 Music in the Classic Era. Two sem hours

The development of musical style and form in the classical era, principally in the works of Haydn, Mozart and Beethoven.

Prereq: Music major or departmental permission.

MUS 534 Music in the Romantic Era. Two sem hours

The development of musical style and form in the romantic era. Intensive study of selected compositions.

Prereq: Music major or departmental permission.

MUS 535 Music of the 20th Century. Two sem hours

Study of major works, composers and aesthetic systems of 20th-century music. Selected works to be announced each time the course is offered.

Prereq: Music major or departmental permission.

MUS 536 World Music I. Two sem hours

The study of music literature from a variety of times and cultures. Discussion of experimentation and improvisation characteristic of soloists and small groups in the history of world music. To include solo song, chamber music, madrigal, piano, lute, sitar (and other non-Western music). *Open to majors and non-majors.*

MUS 537 World Music II. Two sem hours

A continuation of the study of music from a variety of times and cultures with emphasis on large groups. To include instrumental ensembles, orchestra, band, choir, composite groups,

theatrical and festival music. Discussion of the culmination of style characteristics of large groups in the history of world music. *Open to majors and non-majors.*

MUS 538 The New Music. Two sem hours

Examination of the new music; its sound, sources, structures, notation, performance and perception. Listening, study, discussion and performance, covering vocal, instrumental and electronic techniques.

Prereq: Music major or departmental permission.

MUS 540 The Orchestra and Its Literature. Two sem hours

A chronological survey of music for orchestra from its inception in the 18th century to the present. It will include overtures, suites, concertos, symphonies, tone poems, pieces for chorus and soloists with orchestras and other miscellaneous compositions. Emphasis will be on listening, stylistic features and historical background.

Prereq: Music major or departmental permission.

MUS 551 Vocal and Instrumental Accompanying. Two sem hours (Formerly MUS 451)

Provides pianists with experience in accompanying singers and instrumentalists through acquisition of basic skills and repertoire. *Course may be repeated for credit.*

Prereq: Departmental permission.

MUS 560 Studies in Pedagogy. Two sem hours (Formerly MUS 460)

Topics may be selected from the following: piano, organ, voice, vocal diction,

brass, woodwinds, strings, theory, literature, percussion or similar subjects. Topics to be offered will be announced in the schedule of classes. *May be repeated for credit with permission of adviser.*

MUS 561 Studies in Literature. Two sem hours (Formerly MUS 461)

Topics to be selected from the following: piano, organ, vocal repertoire, band, orchestra, choir, solo song, chamber ensemble, opera or similar topics. Topics to be offered will be announced in the schedule of classes. *May be repeated for credit with permission of adviser.*

MUS 577 Advanced Instrumental Conducting. Two sem hours

Interpretative factors and more subtle baton techniques; greater understanding of style and form through analysis of representative scores.

Prereq: MUS 327 Instrumental Conducting or equivalent.

MUS 578 Advanced Choral Conducting. Two sem hours

Choral conducting techniques, styles and materials, organization, balance of choral groups, score reading, control of voices for blending flexibility, vocal poise and musical discipline for both church and school singing groups.

Prereq: MUS 328 Choral Conducting or equivalent.

MUS 595 Workshop in Music. Two sem hours

Topic to be announced in the schedule of classes. Topics usually will relate to some aspect of music education or performance such as Choral Workshop, String Workshop, Band Workshop, Keyboard Workshop, General Music Workshop, Chamber Music Workshop or some similar topic. *May be repeated for credit.*

Prereq: Departmental permission.

Performance Courses

MUS 546 Collegium Musicum. One sem hour

Various ensembles of soloists—instrumental, vocal and mixed. Opportunity to perform old and new music infrequently heard. *May be repeated for credit.*

Prereq: Departmental permission.

MUS 547 Collegium Musicum. Two sem hours

Various ensembles of soloists—instrumental, vocal and mixed. Opportunity to perform old and new music infrequently heard. Credit beyond one semester hour is earned through individual projects and research. *May be repeated for credit.*

Prereq: Departmental permission.

MUS 550 Ensemble. One sem hour

Participation in any regular departmental ensemble as a means of expanding knowledge of literature, observing techniques of conducting and increasing efficiency in principal or secondary performance areas. *May be repeated for additional credit. Open to qualified students upon satisfactory audition.*

Prereq: Departmental permission.

AMU 501, 502 Applied Music—Secondary Performance. One and two sem hours

Open to majors and non-majors. *May be repeated for credit.*

Prereq: Audition.

UPPER DIVISION UNDERGRADUATE COURSES OPEN TO GRADUATE STUDENTS

MUS 413 Orchestration. Two sem hours

Practical work in setting compositions for full orchestra and various other instrumental ensembles.

Prereq: MUS 202 Music Theory-Literature IV.

MUS 414 Band Arranging. Two sem hours

Arranging for band, transcription from other media, original composition, analysis or representative work.

Prereq: Senior standing and departmental permission.

MUS 448, 449 Opera Workshop. One and two sem hours

A laboratory-performance course which will deal with performance of opera scenes and, when feasible, complete works. The musical, technical and dramatic aspects of production will be stressed. *Laboratory required.*

MUS 475 Chamber Music Performance. Two sem hours

Study and performance of literature for small chamber groups. *May be repeated for credit.*

Prereq: Departmental permission.

MUS 491 The Madrigal: Historical Development and Present Significance in England. Two sem hours

A visit to English colleges of education to study and perform madrigals in their historical setting; to attend lectures on the madrigal; to visit and study cathedrals and places of musical interest; to observe public schools and choral societies and to participate jointly with them in concert.

Prereq: Member of University Madrigal Singers.

TENTATIVE SCHEDULE

Course	Winter	Spring	Summer	Fall
MUS 511			Y	X
MUS 513	X		Y	
MUS 517	X			X
MUS 531		Y		
MUS 532	Y		Y	
MUS 533		Y		Y
MUS 534	Y		Y	
MUS 535		Y		
MUS 536				Y
MUS 537	Y			
MUS 538		Y		
MUS 546	X			X
MUS 547	X			X
MUS 550	X			X
MUS 577				Y
MUS 578				Y
MUS 601			X	X
MUS 617	X			X
MUS 618	X			X
MUS 642			X	
MUS 651				Y
MUS 652				Y
MUS 653				Y
MUS 654			Y	
MUS 655			Y	
MUS 658	X			
AMU 501	X	X	X	X
AMU 502	X	X	X	X
AMU 601	X	X	X	X
AMU 602	X	X	X	X
AMU 603	X			X
AMU 604	X			X

Y Courses offered on a two (2) year cycle.

PHYSICS AND ASTRONOMY

Elwood Kureth
Department Head
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487-4144
303 Strong

Daniel Trochet
Coordinator of Advising
487-4144

Program Advisers:

Physics:
James Porter
325 Strong
487-4144

Richard Roth
337 Strong
487-4144

Physics Education:
Daniel Trochet
303 Strong
487-4144

General Science:
Daniel Trochet
303 Strong
487-4144

Jon Wooley
315 Strong
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The Department of Physics and Astronomy offers three programs leading to the degree of Master of Science. The physics program is for those interested in continuing their work at the Ph.D. level and research. It is also for those interested in concentrating in the area of mechanics of continuous media (finite element modeling of continuous media). The physics education program is for in-service and pre-service physics teachers who wish to enhance their physics background or prepare for further graduate study. The general science program is interdisciplinary in nature and is for in-service and pre-service elementary and junior high school teachers who are looking for a program to strengthen and broaden their science background.

Each program requires a minimum of

30 semester hours of approved credits beyond the bachelor's degree. At least six hours must be in cognate areas and no more than nine hours in approved senior level undergraduate courses. Upon admission to a program the student will arrange a program of study with his assigned adviser.

ADMISSION REQUIREMENTS

All applicants must meet degree admission requirements of the Graduate School.

THE PHYSICS PROGRAM

This program prepares students in the area of traditional physics research or in the area of mechanics of continuous media (finite element modeling of continuous media). In addition, graduates from this program are well prepared for further advanced study at the Ph.D. level or for a teaching career at the junior college or community college level.

Those entering this program should have the equivalent of an undergraduate major in physics with a strong background in mathematics. Interested students who do not meet this program's admission requirements may be granted conditional admission provided they are willing to acquire the necessary background in physics and/or mathematics.

Graduation requirements include an

undergraduate and graduate combined total of a minimum of 50 approved semester hours of course work in the physics area and 22 approved semester hours of course work in mathematics. Additionally, each student must complete a research problem culminating in a written thesis. All students must pass a comprehensive oral examination.

Further information may be obtained from either Dr. James Porter or Dr. Richard Roth, graduate advisers, Department of Physics and Astronomy.

THE PHYSICS EDUCATION PROGRAM

This program is designed to improve the preparation of in-service and pre-service high school physics teachers. Graduates from this program are also well qualified for further advanced study at the Ph.D. level in such areas as physics education or science education.

Those entering the program should have at least the equivalent of an undergraduate minor in physics and an appropriate background in mathematics. Those who do not meet this program's admission requirements may be granted conditional admission if they are willing to acquire the necessary background. Admission is restricted to either in-service teachers or to those intending to enter the teaching profession.

Graduation requirements include an undergraduate and graduate combined

total of at least 44 approved hours in the physics area and mathematics through multivariable calculus. Additionally, each student must complete an essay in physics, history of physics or the teaching of physics. All students must pass a comprehensive oral examination after their course work and thesis are both completed.

Further information may be obtained from Dr. Daniel Trochet, graduate adviser, Department of Physics and Astronomy.

THE GENERAL SCIENCE PROGRAM

This program is interdisciplinary in nature and covers the areas of biology, earth science and physical science (astronomy, chemistry, and physics). It is designed for pre-service and in-service elementary and junior high school teachers who wish to upgrade and update their science content and methodology as they prepare for leadership roles in the science programs of their school districts.

Prerequisites for admission to the program include a minimum of 30 semester hours of course work in science and mathematics with basic course work in the sciences. Admission to the program is restricted to those who are either teaching or planning to teach. Those who do not meet this program's admission requirements may be

granted conditional admission if they are willing to obtain the necessary science background.

Graduation requirements include the completion of 60 semester hours (graduate and undergraduate combined) of approved course work with 20 semester hour concentrations in two of the three science areas mentioned above.

Further information may be obtained by contacting Dr. Daniel Trochet or Dr. Jon Wooley, graduate advisers, Department of Physics and Astronomy.

PHYSICS COURSES

PHY 505 Physical Science for Elementary Teachers I. Two sem hours

A course which emphasizes both the content and the processes of the physical sciences. Discussions and demonstrations leading to an understanding of basic concepts through the processes of discovery and inquiry.

Prereq: Two courses in physical science (such as PHY 100 Science for Elementary Teachers or CHM 101 Science for Elementary Teachers).

PHY 506 Physical Science for Elementary Teachers II. Two sem hours

A course which emphasizes both the content and the processes of the physical sciences. Discussions and demonstrations leading to an understand-

ing of basic concepts through the processes of discovery and inquiry.

Prereq: PHY 505 Physical Science for Elementary Teachers I.

PHY 511 Mechanics, Sound and Heat for Teachers. Three sem hours

A study of motion, forces, heat and sound for teachers of general science who have had little or no previous experience with physics.

PHY 512 Light, Electricity and Magnetism for Teachers. Three sem hours

A study of light, electricity and magnetism for teachers of general science who have little previous experience with physics.

Prereq: PHY 511 Mechanics, Sound and Heat for Teachers or equivalent; may be taken concurrently.

PHY 514 Instrumentation for Teachers. Three sem hours

This course treats the fundamentals of electrical instruments and the care and use of those instruments commonly encountered in secondary school science and in general science courses.

PHY 515 Atomic and Nuclear Physics I. Two sem hours

Electron physics, radiation, atomic structure, x-rays, the quantum properties of waves and particles, relativity, the Bohr atom and atomic spectra, wave mechanics and the Schroedinger equation.

Prereq: One year of college physics.

PHY 516 Atomic and Nuclear Physics II. Two sem hours

Nuclear structure, radioactive decay, detection and measurement of nuclear radiation, fission, fusion, cosmic rays, production of radioisotopes in Neutron howitzer.

Prereq: One year of college physics.

PHY 520 Teaching of Physical Science. Two sem hours

Scientific attitudes for use with elementary pupils, the scientific method, a selected group of physical principles, simple experiments which may be used in the elementary school.

PHY 527 Introduction to the Use of Radioisotopes. Two sem hours

Properties, measurement, safe handling

and dosage of radioisotopes. *Not open to students who have credit in PHY 471 Nuclear Physics.*

Prereq: PHY 221 Mechanics, Sound and Heat and PHY 222 Electricity and Light or the equivalent.

PHY 540 The History of Physics and Astronomy. Two sem hours

A course designed to give students an understanding of the contributions made by selected scientists to the development of physics and astronomy and the relationship of these ideas to the period in which the scientists lived. *Prereq: Three courses in physics and/or astronomy (one may be taken concurrently).*

PHY 541 Modern Optics. Three sem hours (Formerly PHY 441)

A course dealing with those aspects of physical and quantum optics which are essential for the quantitative description of modern optical technology such as lasers and holography. Emphasis is on physical optics. Topics covered include application of Fourier Transform to diffraction holography, Fresnel reflection coefficients, propagation of light in crystals, coherence and partial coherence and lasers.

Prereq: PHY 440 Optics and MTH 223 Multivariable Calculus.

PHY 576 Solid State Physics. Three sem hours (Formerly PHY 476)

An introduction to the principles and phenomena associated with the solid state: crystal structure, lattice waves, free electron model, band theory, properties of solids, imperfections.

Prereq: PHY 450 Electricity and Magnetism and PHY 475 Introduction to Quantum Mechanics.

PHY 587 Cooperative Education in Physics. Three sem hours

The course involves a cooperative education experience for the equivalent of one semester full time. A written report is required at the end of the employment. *Credit/No Credit. Credit on a graduate program is subject to departmental approval.*

Prereq: Graduate student in one of the Physics Department's programs. Recommendation by a departmental faculty member.

PHY 590, 591, 592 Special Topics. One, two and three sem hours (Formerly PHY 537, 594)

An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times as long as different topics are covered. *Not more than six hours of special topics may be used on a degree program.*

PHY 594, 595, 596 Workshop. One, two and three sem hours

Laboratory and/or field experience guided toward problems and new curricula in physics and physical science. *Prereq: Departmental permission.*

PHY 622 New Approaches to the Teaching of Science in the Junior High School I. Two sem hours (Formerly PHY 522)

Emphasis will be placed on the philosophy, content, teaching strategies and implementation of newer science curriculum materials designed for use in the junior high or middle school. Needed subject matter background will be provided. Extensive hands-on experience with demonstration and laboratory equipment will be included.

Prereq: Science teaching experience or three laboratory science courses.

PHY 623 New Approaches to the Teaching of Science in the Junior High School II. Two sem hours (Formerly PHY 523)

Emphasis will be placed on the philosophy, content, teaching strategies and implementation of newer science curriculum materials designed for use in the junior high or middle school. Needed subject matter background will be provided. Extensive hands-on experience with demonstration and laboratory equipment will be included.

Prereq: Science teaching experience or three laboratory science courses.

PHY 625 Physical Science. Two sem hours (Formerly PHY 525)

A course for teachers dealing with some fundamentals of the physics and chemistry of electric charge, the forms of energy and the conservation of energy.

Prereq: Three laboratory courses in science.

PHY 650 New Approaches to Teaching Physics I. Two sem hours (Formerly PHY 550)

Designed to increase the subject matter competency of those teaching or preparing to teach high school physics. Content, organization, problems and philosophy of the latest high school physics text materials.

Prereq: One year of college physics and one course in calculus.

PHY 651 New Approaches to Teaching Physics II. Two sem hours (Formerly PHY 551)

Designed to increase the subject matter competency of those teaching or preparing to teach high school physics. The content, organization, problems and philosophy of the latest high school physics text materials.

Prereq: PHY 650 New Approaches to Teaching Physics I.

PHY 652 Supervision of the Science Program. Two sem hours (Formerly PHY 552)

Problems in organizing, staffing, planning and evaluating the K-12 science program.

Prereq: Graduate standing.

PHY 653 Recent Science Curricular Developments. Two sem hours (Formerly PHY 553)

Problems in development and implementation of materials, methods and content of recent curricular efforts.
Prereq: Science teaching experience and graduate standing.

PHY 662 Advanced Mechanics I. Three sem hours (Formerly PHY 562, 662 Advanced Mechanics)

This course considers exactly solvable problems in the mechanics of discrete and continuous media.
Prereq: Permission of graduate adviser.

PHY 663 Advanced Mechanics II. Four sem hours

This course describes the approximate solution of problems in the mechanics of linear continuous media via variational methods. Emphasis is placed on finite element analysis.
Prereq: PHY 662 Advanced Mechanics I and one course in computer science.

PHY 671 Electromagnetic Theory. Three sem hours (Formerly PHY 571)

Provides the student with a foundation in the classical theory of the Maxwell field equations and indicates the many

current applications. Typical topics covered are: Maxwell's equations, conservation laws, plane waves, wave guides, resonant cavities, dipole radiation, diffraction, radiation by moving charges, Bremsstrahlung, Cerenkov radiation, multipole fields, plasma electrodynamics.

Prereq: PHY 450 Electricity and Magnetism or departmental permission.

PHY 675 Quantum Mechanics. Four sem hours (Formerly PHY 582)

The Schroedinger equation and its applications in three dimensions, angular momentum, electron spin, Heisenberg's matrix mechanics, Dirac notation, perturbation theories, variational methods, scattering theory.

Prereq: PHY 475 Introduction to Quantum Mechanics.

PHY 679, 680, 681 Special Topics. One, two and three sem hours (Formerly PHY 537, 594)

An experimental course for subject matter not provided in other department offerings. The content will change from semester to semester. Students may elect this course several times as long as different topics are covered. *Not more than six hours of special topics may be used on a degree program.*

PHY 682, 683, 684 Workshops. One, two and three sem hours

Laboratory and/or field experience guided toward problems and new curricula in physics and physical science.
Prereq: Departmental permission.

PHY 688 Cooperative Education in Physics. Three sem hours

The course involves a cooperative education experience for the equivalent of one semester full time. A written report is required at the end of the employment. *Credit/No Credit. Credit on a graduate program is subject to departmental approval.*

Prereq: Graduate student status; enrollment in one of the Physics Department's programs; recommendation by a departmental faculty member.

PHY 690, 691, 692 Thesis/Final Project. One, two and three sem hours

Intensive research in physics or physics education including the submission of a thesis or written report under the direction of a research adviser.

Prereq: Departmental permission.

PHY 693, 694, 695 Seminar. One, two and three sem hours (Formerly PHY 596)

Presentation of special reports and group discussion on selected topics in physics and physical science.

PHY 697, 698, 699 Independent Study/Research. One, two and three sem hours

An intensive study of a problem or group of problems under the direction of a University faculty member.

Prereq: Departmental permission.

ASTRONOMY COURSES

AST 503 Astronomy I. Two sem hours

A non-mathematical descriptive course in astronomy to acquaint the teacher with the general field of astronomy. Many of the topics considered can be used in the elementary classroom. A study of the sun and its family of planets as well as the stars and nebulae in the universe beyond the solar system. Naked eye observations of the constellations and telescopic observations of the moon, planets, double stars and clusters. *Not open to students who have credit in AST 203 Exploration of the Universe or AST 205 Principles of Astronomy.*

AST 504 Astronomy II. Two sem hours

A non-mathematical descriptive course in astronomy to increase the teacher's acquaintance with the general field of astronomy and the work of the astronomer. Many of the topics covered can be used in the elementary and junior high school classroom. The stellar system, a review of the solar system and the motions of the earth. Naked eye and telescopic observations constitute the laboratory phase of the course.

Prereq: AST 503 Astronomy I or AST 203 Exploration of the Universe, AST 205 Principles of Astronomy or equivalent.

OTHER COURSES FOR CREDIT TOWARD M.S. IN PHYSICS OR PHYSICS EDUCATION

The following advanced undergraduate courses are also available to graduate students for graduate credit depending on the background, needs and curriculum of the student. On this matter the student should, before completing his registration, have a clear understanding with his adviser in the Department of Physics and Astronomy. No more than nine (9) hours of undergraduate coursework are permitted in the earning of any graduate degree. For descriptions of these courses, see the Undergraduate Catalog.

- PHY 431 Intermediate Mechanics II (3)**
- PHY 436 Vibration and Sound (3)**
- PHY 440 Optics (3)**
- PHY 450 Electricity and Magnetism (4)**
- PHY 452 Electrical Measurements (4)**
- PHY 454 Microcomputer in Science Laboratory (3)**
- PHY 456 Electronics for Scientists (4)**
- PHY 460 Heat and Thermodynamics (3)**
- PHY 462 Kinetic Theory and Statistical Mechanics (3)**
- PHY 471 Nuclear Physics (4)**
- PHY 475 Introduction to Quantum Mechanics (3)**
- PHY 481 Mathematical Physics (3)**
- PHY 495 Readings in Physics (1)**

TENTATIVE SCHEDULE

Course	Winter	Spring	Summer	Fall
PHY 505				†
PHY 506				
PHY 511				†
PHY 512				
PHY 515				X
PHY 516	X			
PHY 520		†		
PHY 527	†			
PHY 540				
PHY 622			‡	
PHY 623				
PHY 625				
PHY 650				
PHY 651	†			
PHY 652		†		
PHY 662				X
PHY 663	X			
PHY 671				X
PHY 675	X			
PHY 694	‡†			
AST 503			X	X
AST 504	X		X	

† Courses offered on a two (2) year cycle in odd years.
 ‡ Courses offered on a two (2) year cycle in even years.
 ‡† The Seminar in Science Teaching is offered on a two (2) year cycle in even years, alternating between PHY 694 and BIO 694.

POLITICAL SCIENCE

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Courses offered by the Department of Political Science serve the specific purposes of two programs: (1) a Master of Public Administration and (2) an interdisciplinary Master of Arts in social science with a concentration in political science. Information on the latter program is listed in the History and Philosophy Department section of this catalog. In addition, many students from other disciplines select political science courses to meet cognate requirements or for other individual reasons.

MASTER OF PUBLIC ADMINISTRATION

PROGRAM OBJECTIVES

Built around required core courses, electives and cognates, the Master of Public Administration program enables students to concentrate in local government administration—that is, the administration of small communities, medium-sized cities, regions, counties and states. The program is academic in content, but aims at providing graduate professional education for individuals who are currently pursuing public service careers or are preparing to enter them as city managers, assistants to city managers, directors of public works, finance, personnel and human services departments, appointed city clerks, administrative personnel in engineering departments and members of administrative staffs. The M.P.A. curriculum may thus provide a foundation for both entry level personnel such as analysts, researchers and staff workers, and intermediate position holders intent upon advancing professionally as decision makers, politicians and city managers.

ADMISSION REQUIREMENTS

In addition to meeting the Graduate School degree admission requirements, applicants must meet a stricter overall undergraduate grade point average of 2.75 ("A" = 4.0) or 3.0 in the last half of the undergraduate program in order to be admitted to the Master of Public Administration program. It is further understood that a personal interview with the program coordinator is normally a part of the admission process.

Applicants who do not meet the above criteria may be admitted to the program after completing a minimum of 10 graduate hours. At least six hours in this 10 hour requirement must be taken in Eastern's Political Science Department. A student must achieve a grade point average of 3.3 ("B +") in the 10 hours and in the two or more courses required by the Political Science Department.

Although applicants' undergraduate degrees may be in any field, the nature of previous academic preparation may have an effect on their ability to achieve a satisfactory graduate record. Applicants will therefore be required to demonstrate or acquire specific preparation in statistics, accounting, public sec-

tor economics and computer methods. They are also expected to have sufficient instruction in political science and other social sciences, or comparable professional experience gained outside the classroom, in order to perform satisfactorily in the program.

The following preparatory undergraduate courses are required of all applicants:

1. two political science courses in the fundamentals of American government, public law or public administration;
2. two basic economics courses—preferably macro and micro;
3. two social science courses in disciplines other than political science and economics; and
4. one course each in accounting, statistics, computer methods and written communication.

Any of these preparatory courses which have not been completed may be taken at Eastern Michigan University or at other colleges and universities. These preparatory courses may be taken after admission to the M.P.A. program, concurrently with courses in the program, but they must be completed prior to completion of 12 graduate credits. Credits obtained in preparatory courses will not count toward the degree.

PROGRAM REQUIREMENTS

The Master of Public Administration is awarded upon satisfactory completion of at least 36 semester hours of appropriate credit, a total that may include up to nine hours in upper division 400 level undergraduate courses. All course selections must be approved by the program coordinator prior to registration each semester. Listed below are required, elective and cognate courses.

- A. Required Courses (six courses)
18 hours
- PLS 510 Modern Public Administration (3)
 - PLS 515 Public Personnel Administration (3)
 - PLS 610 Public Organization Theory (3)
 - PLS 615 Public Budget Administration (3)
 - PLS 678 Quantitative Analysis in Government (3)
 - PLS 695 Research Seminar in Public Administration (3)

- B. Elective Courses (five courses) 10 hours
- PLS 549 Comparative Administrative Systems (2)
- PLS 565 Studies in State and Local Government (2)
- PLS 590-1-2 Special Topics (1, 2, 3)
- PLS 620 Legal Aspects of Local Administration (2)
- PLS 625 Small Community Administration and Politics (2)
- PLS 630 Public Bureaucracies and Policy Formation (2)
- PLS 640 Modern County Government (2)
- PLS 645 Intergovernmental Relations (2)
- PLS 688 Practicum in Public Affairs (3)
- PLS 697-8-9 Independent Studies (1, 2, 3)
- ECO 550 Public Finance (3)
- ECO 551 State and Local Government Finance (3)

- C. Cognate Courses (four courses) eight hours
- Choose one course from four of the following five groups:

1. Planning Studies
 - PLS 520 Land Use and Preservation Law (3)
 - ECO 534 Regional and Urban Economics (3)
 - ECO 586 Economic Planning (3)
 - GEO 552 Processes of Suburban Development (2)
 - GEO 553 City and Regional Planning (2)
 - GEO 581 Environmental Impact Statements (2)
2. Community Studies
 - EDL 511 Community Organization (2)
 - SOC 656 Human Ecology and Community Development (3)
 - HIS 533 Studies and Techniques in Local History (3)
3. Leadership and Communications Studies
 - CTA 509 Communications for Leaders (2)
 - EDL 710 Leadership Theory (2)
 - MGT 567 Business Communication (3)
4. Quantitative Studies
 - SOC 630 Advanced Social Statistics (3)
 - EDP 651 Statistics II: Inferential Statistics (2)
 - ECO 510 Applied Economic Statistics (3)

- MTH 573 Applied Statistics (2)
5. Personnel Studies
 - ECO 522 Collective Bargaining (3)
 - ECO 524 White Collar and Public Employee Unions (3)

POLITICAL SCIENCE COURSES

PLS 510 Modern Public Administration. Three sem hours

An overview of the nature of public administration and its relation to politics and the tasks of the modern political system.

PLS 515 Public Personnel Administration. Three sem hours

This course examines contemporary administration practices in public sector personnel management, particularly as related to the local level of government. Areas of emphasis include the collective bargaining process, discipline practices, grievance handling and arbitration preparation, affirmative action requirements and recruitment and validation of evaluation and promotion practices.

PLS 520 Land Use and Preservation Law. Three sem hours

A study of real property law in a political and legal context, with special emphasis on the private law devices of easement and covenants running with the land and on the public device of zoning.

PLS 545 International Relations. Two sem hours

Relations between nations, factors affecting behavior in the state system and possibilities of developing a viable international system.

Prereq: PLS 112 American Government or PLS 202 State and Local Government.

PLS 546 Studies in International Law. Two sem hours

Selected problems in international law, the Law of the United Nations, world law, the law of war and peace, the International Court of Justice, national concepts of international law.

PLS 547 Communist Political Systems. Two sem hours

A comparative study of selected topics in the politics of Communist-ruled

states—principally Soviet Russia, China and East Europe. Sources of bloc unity and diversity, as well as changing trends in and among communist states and parties will be examined.

PLS 549 Comparative Administrative Systems. Two sem hours

Processes of administrative adaptation to development goals in newly independent non-Western countries, current approaches and theories of administrative modernization and development in the light of Western and non-Western experiences.

Prereq: Departmental permission.

PLS 565 Studies in State and Local Government. Two sem hours (Formerly PLS 587)

Studies in the governmental process at the state and local levels. Focuses on current issues and problems, including the changing aspects of federalism.

PLS 581 Contemporary Problems in American Government. Two sem hours

Executive-legislative relationships, judicial review, the making of foreign policy, national defense, public welfare, the electoral process and the role of the citizen in American government.

PLS 587 Cooperative Education in Political Science. Three sem hours

Four to six months full time employment in the public sector. The program consists of two directed work experiences alternated with full time University attendance. Application of credit toward political science programs is subject to departmental approval.

Offered on a Credit/No Credit basis. Prereq: Admission to program by departmental recommendation.

PLS 590, 591, 592 Special Topics. One, two and three sem hours (Formerly PLS 539)

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. *Not more than six hours of special topics may be used on a degree program.* Information on content can be obtained at department office.

Prereq: Departmental permission.

PLS 610 Public Organization Theory.
Three sem hours

An analysis of theories of organization in relation to government and public institutions.

Prereq: Departmental permission.

PLS 615 Public Budget Administration.
Three sem hours

An examination of the political significance and administrative procedures of government budgeting, with emphasis on the state and local levels.

PLS 620 Legal Aspects of Local Administration. **Two sem hours**

An examination of legal issues concerning governmental units, agencies and governmental activities as they relate to public administration.

PLS 625 Small Community Administration and Politics. **Two sem hours**

An examination of the politics and administrative needs and problems of American communities with populations of less than 50,000.

PLS 630 Public Bureaucracies and Policy Formation. **Two sem hours**

A study of the roles of public bureaucracies within the policy formation process. The course examines modern approaches to policy analysis, the nature of public bureaucracies and the problems of implementing and evaluating public policies.

PLS 640 Modern County Government. **Two sem hours**

Examines the past, present and future of county government in the United States. Topics covered include the legal setting, organization and structure, intergovernmental relations, politics, finances and service capabilities of counties.

PLS 645 Intergovernmental Relations.
Two sem hours

A study of recent trends in the American Federal system. The course examines the major programs and organizational structures used to coordinate public policies at the federal, state and local levels of government. Emphasis will be placed on the concerns of local levels of government.

PLS 678 Quantitative Analysis in Government. **Three sem hours**

Examines the uses of computers and statistical analysis in local and state governments.

Prereq: One course in statistics and one in computers.

PLS 688 Practicum in Public Affairs.
Three sem hours

Extends classroom learning through administrative experience with public sector agencies. Includes written assignments and a seminar designed to help students relate their field experience to public administration concepts.

Prereq: Departmental permission.

PLS 695 Research Seminar in Public Administration. **Three sem hours**

A capstone course in the public administration curriculum, acquainting students with the major research trends and problems in the discipline. Requires from the student a substantial research project, to be reviewed by three faculty members.

Prereq: PLS 510 Modern Public Administration, PLS 610 Public Organization Theory, PLS 678 Quantitative Analysis in Government and departmental permission.

PLS 697, 698, 699 Independent Studies.
One, two and three sem hours
(Formerly PLS 597, 598, 599)

An intensive study of a problem or group of problems under the direction of a University faculty member.

Prereq: Departmental permission.

OTHER COURSES

These upper division undergraduate courses may be taken for graduate credit and applied on the degree program in social studies or as cognates by majors in other fields. No more than nine (9) hours of undergraduate coursework are permitted in the earning of any graduate degree.

PLS 410 Political Science in Fiction (3)

PLS 412 Comparative Legal Systems (3)

PLS 418 Twentieth-Century Political Theory (3)

PLS 420 Advanced Political Thought (3)

PLS 431 Theories of Public Organization (3)

PLS 456 Criminal Law I (3)

PLS 462 Foreign Relations of the Soviet Union (3)

PSYCHOLOGY

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DEGREE PROGRAMS OFFERED

The Department of Psychology offers graduate programs leading to the Master of Science degree in psychology with emphasis in general psychology and clinical psychology, a Master of Science degree in behavioral services and a Specialist in Arts in school psychology.

ADMISSION REQUIREMENTS TO PROGRAMS IN CLINICAL OR GENERAL PSYCHOLOGY

Admission to the graduate programs in clinical or general psychology is available to those students who meet the degree admission requirements of both the Graduate School of Eastern Michigan University and the Department of Psychology. The primary criteria on which the selection is made are the promise of successful completion of the program requirements based on previous academic performances and acceptable scores on the Graduate Record Examination.

To qualify for consideration for degree admission status in the graduate program in psychology, the student must:

1. meet the academic requirements for admission to the Graduate School;
2. present an undergraduate academic record of good quality (approximately "B" average or better);
3. present a minimum of 20 semester hours of credit in psychology, including courses in statistics and experimental psychology;
4. submit a transcript of scores from the Graduate Record Examination which includes the verbal, quantitative and the advanced (psychology) tests. The applicant is expected to attain a combined score of 1000 on the verbal and quantitative tests in order to be admitted.

Application to the psychology program should not be made until the stated requirements can be satisfied. Credits earned under Special Student status do not automatically apply to the requirements of the degree program.

Applications should be submitted to the Graduate School in accordance with the instructions described in this catalog.

There are no admissions to degree programs in the spring and summer terms. After the admission quota for the program has been filled, students will be placed on a waiting list. Placement on the waiting list, however, does not guarantee admission unless spaces become available in accordance with departmental admission standards and policies.

MASTER OF SCIENCE DEGREE IN PSYCHOLOGY (GENERAL)

PROGRAM OBJECTIVES

The curriculum is designed to produce a master's level psychologist with general knowledge of psychology that includes a variety of content areas, research methodologies and theoretical formulations. Students completing these programs should be able to:

1. pursue employment in a wide variety of industrial and institutional settings;
2. continue their training in doctoral programs;
3. qualify for teaching positions in community and four-year colleges.

PROGRAM DESCRIPTION AND GRADUATION REQUIREMENTS

The Master of Science degree in general psychology requires the completion of 30 graduate credits; 24 credits in psychology, plus six credits in cognate area. The specific program of each student is designed in consultation with a graduate adviser. This program must be approved by the graduate adviser before the student may enroll for course credit.

The requirements outlined below provide the basic guidelines within which students' programs are developed.

1. Core requirement (nine hours)
 - PSY 600 Psychological Statistics I (3)
 - PSY 620 Learning (3)
 - PSY 646 Personality: Theory and Research (3)
2. Minimum of one course from Group A and one from Group B
 - Group A (three hours)
 - PSY 601 Psychological Statistics II (3)

- PSY 605 Research Design (3)
- PSY 623 Experimental Analysis of Behavior (3)
- PSY 625 Behavior Change Methods I (3)
- PSY 626 Motivation and Emotion (3)
- PSY 629 Physiological Psychology (3)
- PSY 632 Sensation and Perception (3)
- Group B* (three hours)
- PSY 635 Cognitive Processes (3)
- PSY 637 Social Psychology (3)
- PSY 640 Developmental Psychology (3)
- PSY 743 Psychopathology (3)
- PSY 750 Clinical Psychology (3)
- PSY 775 Theory of Psychological Testing (3)
- 3. Electives (12 hours)
Psychology courses within the department (6-12)
- 4. Cognate courses from outside the department (0-6 hours)
- 5. PSY 692 Thesis (3)
Original research designed and completed by the student under the guidance of the thesis committee.
- 6. Comprehensive Examination.

MASTER OF SCIENCE DEGREE IN PSYCHOLOGY (CLINICAL)

PROGRAM OBJECTIVES

This program offers specific training for the development of knowledge and skills required of the master's level clinician functioning in a variety of institutional and community mental health settings. This program is designed as a terminal degree, although it will not prevent the student from continuing graduate study.

The program objective is to produce graduates capable of recognizing, assessing and ameliorating client problems under the supervision of doctoral level clinical psychologists. It is intended that the graduate will be able to undertake and complete research problems typically found in the clinical setting. The practicum experiences are designed to provide opportunities to develop a variety of skills in assessment, diagnosis, psychotherapy and research commensurate with the master's level of training, and to provide the opportunity for professional growth through interaction with professional people from the various allied areas, such as medicine,

social work, psychiatry and public health. Graduates of this program may apply for limited license in Michigan and may seek admission to the doctoral programs if desired.

PROGRAM DESCRIPTION AND GRADUATION REQUIREMENTS

This program requires the completion of 45 graduate credits, the basic guidelines for which are outlined below.

1. Core Requirements (nine hours)
PSY 600 Psychological Statistics I (3)
PSY 646 Personality: Theory and Research (3)
PSY 743 Psychopathology (3)
2. Assessment (eight hours)
PSY 762 The Wechsler Intelligence Tests (4) *and*
PSY 770 Personality Evaluation I (4) *or*
PSY 771 Projective Techniques (4)
3. Professional Practice/Treatment (six hours)
PSY 750 Clinical Psychology (3)
PSY 751 Psychotherapy (3)
4. Practicum (six hours)
PSY 788 Practicum in Clinical Psychology I (3)
PSY 789 Practicum in Clinical Psychology II (3)
5. Electives (16 hours)
Psychology courses within the department (9-15)
6. Cognate courses from outside the department (0-6 hours)

MASTER OF SCIENCE DEGREE IN BEHAVIORAL SERVICES

This program is designed to prepare students who wish to develop skills in areas such as stress management, relaxation training, covert conditioning, behavior modification and therapy, geriatric environmental planning and behavioral medicine for licensure. The program provides a contemporary behavioral approach in which students learn to examine problems from the standpoint of a systems analysis, carry out a functional analysis of behavior, conduct data based treatment plans and carry out assessment and modification of behavior.

PURPOSE AND OBJECTIVES

1. Prepare students to meet state licensing law requirements for

- master's level trained psychologists.
2. Train students to apply principles of behavior to a wide variety of problem areas.
3. Train students to write and implement behavior treatment programs.
4. Train students to carry out a systems analysis and learn to work within organizational structures.
5. Have students qualify for certification from the Association for Behavior Analysis.
These goals and objectives are designed to be consistent with requirements for credentialing master's level psychologists. Non-traditional settings employing master's level psychologists normally focus on data based treatment strategies and accountability. Students trained in this program will be highly qualified to provide these services.

ADMISSION REQUIREMENTS

The following will be required in application for degree admission to the proposed program:

1. Meet the academic requirements for admission to the Graduate School.
2. Complete a minimum of 20 semester hours in psychology, including a course in psychological statistics and an upper level laboratory course in experimental psychology.
3. Have an undergraduate grade point average of at least 2.5 on a 4.0 scale.
4. Show evidence of some experience outside of classroom activities.
5. Present three letters of recommendation from employers, instructors or others who can testify to the applicant's suitability for the program and the promise of successful completion.
6. An autobiography describing academic and professional history and professional goals.

Each application will be evaluated for the applicant's suitability for the program and promise of successful completion.

GRADUATION REQUIREMENTS

The program requires the completion of 45 graduate credits that are outlined below.

1. Core (nine hours)
PSY 600 Psychological Statistics I (3)
*PSY 620 Learning (3)

- *PSY 623 Experimental Analysis of Behavior (3)
- 2. Assessment (Evaluation) (seven hours)
 - *PSY 619 Behavioral Assessment (3)
 - PSY 762 The Wechsler Intelligence Tests (4) *or*
 - PSY 770 Personality Evaluation I (4)
- 3. Treatment (Intervention) (six hours)
 - *PSY 625 Behavior Change Methods I (3)
 - *PSY 627 Behavior Change Methods II (3)
- *Beginning with the fall 1984 semester, students admitted to the behavioral services program must achieve a minimum grade of "B" in each of the following courses, PSY 619, 620, 623, 625 and 627. A student who receives a grade lower than "B" in any of these courses may elect to repeat the class in order to meet graduation requirements.
- 4. Practicum (eight hours)
 - PSY 641 Prepracticum I: Assessment (1) (*To be taken concurrently with PSY 619 Behavioral Assessment.*)
 - PSY 651 Prepracticum II: Research (1) (*To be taken concurrently with PSY 623 Experimental Analysis of Behavior.*)
 - PSY 661 Prepracticum III: Individual Treatment (1) (*To be taken concurrently with PSY 625 Behavior Change Methods I.*)
 - PSY 671 Prepracticum IV: Treatment in Systems (1) (*To be taken concurrently with PSY 627 Behavior Change Methods II.*)
 - PSY 683 Field Practicum with Seminar (2) (250 hours field experience)
 - PSY 684 Field Practicum with Seminar (2) (250 hours field experience)
- 5. Electives (15 hours)
 - Cognates may be taken in other departments with permission from the adviser for a total of six credit hours.

The core courses are designed to train the students in basic statistics, the philosophy of the science of human behavior and the major theoretical and methodological foundations for behavioral psychology. Under assessment, the students will study both traditional and behavioral approaches to evaluating and measuring intelligence and personality behavior. This training will be valuable for developing a basis for treatment strategies and treatment evaluation. The treatment courses will

serve as a basis for how to design and conduct interventions for the modification of behavior. The prepracticum courses will permit students to practice what they are learning while they are learning. The first two prepracticums will stress single case design and its role in the scientific analysis of human behavior. The last two prepracticums will permit students to apply behavior change interventions to clients while being trained and supervised in class. The field practicum course will require students to conduct a full assessment and intervention in some problem area as well as to write up this work in a report that covers all of the conventions of applied behavior analysis. Finally, the students will select five (5) courses from a list of electives that will give them a foundation in basic content and methodology areas of psychology. In some cases, students may elect to supplement their basic research skills by electing to complete a thesis.

SPECIALIST'S DEGREE IN SCHOOL PSYCHOLOGY

The program is an interdisciplinary effort among the Departments of Teacher Education, Psychology and Special Education and is coordinated through the Department of Psychology.

PURPOSE AND OBJECTIVES

1. Meet the state requirements for full approval as school psychologists.
2. Provide the psychological services required by state and federal laws.
3. Promote the student welfare through the development of effective programming recommendations.
4. Develop improved understanding of students' educational needs in parents, teachers, administrators and others interested in promoting student welfare.

ADMISSION REQUIREMENTS

The admissions committee will select students in terms of the promise of successful completion of program requirements based on previous academic performance, evidence of aptitude, past experience and letters of recommendation. Committee decisions will be made once each year by June 15 for the fall class. Approximately 10 students will be accepted each year.

Applicants with a bachelor's degree (including all persons without a master's degree) must meet the following

requirements:

1. Present background preparations in the areas of psychology, special education or education. This preparation must include a bachelor's degree with a minimum of 36 hours, primarily in the preceding fields.
2. Must have a minimum undergraduate grade point of 2.75 on a 4.0 scale.
3. Normally, students applying for the specialist's program should have a minimum of three years of full time successful professional experience in the fields of psychology, special education or education.
4. Must submit results of the verbal and quantitative sections of the Graduate Record Examination. In addition, the applicant must supply the advanced achievement tests in psychology or education of the Graduate Record Examination and achieve scores acceptable to the admissions committee.
5. Must supply letters of recommendation from three professional persons familiar with the academic performance and professional abilities.

Applicants holding the master's degree must meet all the above requirements except number 2. Persons with a master's degree must present a minimum undergraduate GPA of 2.5 and a graduate GPA of at least 3.3 ("B +").

PROGRAM DESCRIPTION AND GRADUATION REQUIREMENTS

The Specialist in Arts degree in school psychology requires a minimum of 62 semester credits of graduate work. The coursework and required educational experiences are designed to provide the competencies required by state law. These competencies ensure that the graduate will have a depth of understanding and ability to perform psycho-educational evaluations, help plan educational strategies, communicate findings, implement intervention programs, consult and counsel with school personnel, parents and pupils and assume a leadership role in developing services to students.

Program requirements, including practicum and internship, will generally necessitate two calendar years of study. A minimum of three semesters of full time day scheduling is required.

An overall G.P.A. of 3.3 ("B + ") is required for graduation.

PSYCHOLOGY COURSES OPEN TO SENIORS WITH PERMISSION OF GRADUATE SCHOOL AND TO MASTER'S DEGREE STUDENTS WITH PERMISSION OF GRADUATE ADVISER

PSY 520 Coping with Problem Behavior. Two sem hours

The application of psychological principles of learning to school (and school-related) problem behaviors. Emphasis is on procedures that can be implemented with minimal cost by classroom teachers, principals and other school-related personnel.

Prereq: One course in psychology.

PSY 528 The Psychology of Stress and Relaxation. Three sem hours

An overview of major stress theories, personal and professional application of relaxation and stress prevention techniques and exploration of therapeutic and community efforts designed to deal with stress related problems.

Prereq: One course in psychology.

PSY 532 Psychology of Adolescence. Two sem hours

Physical, intellectual, emotional and social development from puberty to adulthood with emphasis on the significance for teachers and others interested in youth.

Prereq: One course in psychology.

PSY 535 Developmental Psycholinguistics. Three sem hours

An introduction to the processes involved in children's learning of oral language.

Prereq: One course in psychology or permission of the instructor.

PSY 540 Psychology of Adjustment. Two sem hours

Issues, concepts, principles and theories in human adjustment.

Prereq: One course in psychology.

PSY 542 Women and Mental Health. Two sem hours

Focus on theory and research concerning women's responses to life stresses, women as clients in psychotherapy and the role of the female mental health professional.

Prereq: One course in psychology.

PSY 543 Abnormal Psychology. Two sem hours

Behavior pathologies of children and adults, including symptom origins and methods of treatment. *Not open to students who hold credit in PSY 360 Abnormal Psychology.*

Prereq: One course in psychology.

PSY 550 Dynamics of Human Behavior. Two sem hours

The determinants of behavior and personality with emphasis on the physiological, psychological and cultural bases.

Prereq: One course in psychology.

PSY 551 Psychology of Death and Dying. Two sem hours

Study of attitudes toward, theories about and empirical data concerning human mortality and suicide and its relevance to life adjustment, aging, religion and other areas.

Prereq: PSY 360 Abnormal Psychology or PSY 543 Abnormal Psychology and PSY 552 Theories of Personality.

PSY 552 Theories of Personality. Two sem hours

Major theories of personality including Freud, Jung, Adler, Rank, Sullivan, Kelly, Holistic and learning theorists.

Prereq: One course in psychology.

PSY 553 Existential Psychology. Two sem hours

Origins, growth, major contributors and foci of concern of the existential movement(s) in psychology and psychotherapy.

Prereq: Two courses in psychology; PSY 552 Theories of Personality is recommended.

PSY 560 Psychology of Film. Three sem hours

Examination of the interaction of film, audience and filmmaker. Major topics include psychology of viewer and filmmaker, cinematic presentations of psychology, family, male/female relationships, violence and sexuality.

Prereq: Graduate status.

PSY 565 Industrial Psychology. Two sem hours

Psychological principles, theories and methodology applied to behavior in industrial settings. *Not open to students*

who hold credit in PSY 351 Industrial Psychology.

Prereq: One course in psychology.

PSY 567 Engineering Psychology. Two sem hours

A survey of psychological principles, theories and methodology relating to the human use which is made of the products of engineering design processes. Attention is given to simple products (e.g., common household articles) as well as complex products (e.g., computerized decision aids), and to how psychological research can contribute to improvements in product design.

Prereq: One course in psychology.

PSY 570 Consumer Psychology. Two sem hours

A survey of psychological principles, theories and methodology relating to consumer behavior.

Prereq: One course in psychology.

PSY 580 Psychology of Individual Differences. Two sem hours

The objective and quantitative investigation of human variability in behavior phenomena and the factors influencing these differences.

Prereq: One course in psychology.

PSY 595 Workshop in the Scientific Approach to Problem Solving. Two sem hours

The scientific approach to the solving of problems; the application of psychological principles.

Prereq: One course in psychology.

COURSES OPEN ONLY TO GRADUATE STUDENTS

PSY 600 Psychological Statistics I. Three sem hours

A study of statistical techniques including small sample theory, analysis of variance and non-parametric statistics.

Prereq: PSY 205 Quantitative Methods in Psychology or equivalent and departmental permission.

PSY 601 Psychological Statistics II. Three sem hour

More complex analysis of variance models plus various correlational procedures.

Prereq: PSY 600 Psychological Statistics I and departmental permission

PSY 605 Research Design. Three sem hours

Research methods and analysis of data.
Prereq: PSY 301 Introductory Experimental Psychology and departmental permission.

PSY 610 Clinical Neuropsychology. Three sem hours

Study of methodology, research and clinical application of clinical neuropsychological principles. Includes demonstration of neuropsychological assessment test instruments.
Prereq: Graduate student; 20 hours in psychology or equivalent and departmental permission.

PSY 619 Behavioral Assessment. Three sem hours (Formerly PSY 519)

A behavioral approach to measuring and analyzing personality using standardized tests and behavioral observation techniques; multiple test administration, scoring and evaluation are included in concurrent enrollment in PSY 641 Practicum I: Assessment.
Prereq: Departmental permission.

PSY 620 Learning. Three sem hours

Research methods, experimental findings and theories of learning.
Prereq: Twenty hours in psychology, including PSY 301 Introductory Experimental Psychology or equivalent and departmental permission.

PSY 623 Experimental Analysis of Behavior. Three sem hours

The principles and parameters of respondent and operant conditioning and their application. Lecture and laboratory.
Prereq: Twenty hours in psychology, including PSY 301 Introductory Experimental Psychology or equivalent and departmental permission.

PSY 625 Behavior Change Methods I. Three sem hours

Behavioral theory and research relating to issues, techniques and implementation of treatment for psychological problems are introduced. *To be taken in conjunction with PSY 661 Prepracticum III: Individual Treatment.*
Prereq: PSY 619 Behavioral Assessment, PSY 620 Learning and departmental permission.

PSY 626 Motivation and Emotion. Three sem hours

A review of major findings, theories and recent research developments in the areas of motivation and emotion.
Prereq: Twenty hours in psychology, including PSY 301 Introductory Experimental Psychology or equivalent and departmental permission.

PSY 627 Behavior Change Methods II. Three sem hours

The study of the application of behavioral analysis in systems and organizations such as business, industry, schools, the family and health care settings. *Concurrent registration in PSY 671 Prepracticum IV: Treatment in Systems required.*
Prereq: PSY 619 Behavioral Assessment, PSY 620 Learning and departmental permission.

PSY 629 Physiological Psychology. Three sem hours

An examination of physiological processes and their relationships to behavior. Lecture and laboratory.
Prereq: Twenty hours in psychology, including PSY 301 Introductory Experimental Psychology or equivalent and departmental permission.

PSY 632 Sensation and Perception. Three sem hours

A review of research and theory dealing with sensory experience and perception.
Prereq: Twenty hours in psychology, including PSY 301 Introductory Experimental Psychology or equivalent and departmental permission.

PSY 635 Cognitive Processes. Three sem hours

A review of theoretical and empirical developments in the area of thinking, problem solving, concept formation, creativity and decision making.
Prereq: Twenty hours in psychology, including PSY 301 Introductory Experimental Psychology or equivalent and departmental permission.

PSY 637 Social Psychology. Three sem hours

The study of the processes underlying social interaction and behavior in social contexts.
Prereq: Twenty hours in psychology and departmental permission.

PSY 640 Developmental Psychology. Three sem hours

Biological, intellectual, social and emotional changes through the life span. Major concepts and problems related to developmental stages of life.
Prereq: Twenty hours in psychology and departmental permission.

PSY 641 Prepracticum I: Assessment. One sem hour

Methods for measuring and analyzing behavior will be carried out in applied setting. *Two hours of field work are required each week. Concurrent registration in PSY 619 Behavioral Assessment is required.*
Prereq: Departmental permission.

PSY 646 Personality: Theory and Research. Three sem hours

Advanced study of concepts and empirical research in personality.
Prereq: Twenty hours in psychology, including PSY 451 Dynamics of Personality or equivalent and departmental permission.

PSY 651 Prepracticum II: Research. One sem hour

Research that involves the experimental analysis of behavior will be conducted two hours each week in laboratory or field setting. *Concurrent registration in PSY 623 Experimental Analysis of Behavior is required.*
Prereq: Twenty hours in psychology and departmental permission.

PSY 661 Prepracticum III: Individual Treatment. One sem hour

Single case work with persons interested in changing unwanted behaviors will be carried out for two hours each week. *Concurrent registration in PSY 625 Behavior Change Methods I is required.*
Prereq: PSY 619 Behavioral Assessment, PSY 620 Learning and departmental permission.

PSY 671 Prepracticum IV: Treatment in Systems. One sem hour

Casework will be conducted in a setting that will permit a system analysis and intervention such as a school, institution or family setting. *The course requires two hours of field work each week. Concurrent registration in PSY 627 Behavior Change Methods II is required.*

Prereq: PSY 619 Behavioral Assessment, PSY 620 Learning and departmental permission.

PSY 680, 681 Special Topics. Two and three sem hours

Course content will change from semester to semester. *Credit/no credit.*
Prereq: Departmental permission.

PSY 683, 684 Field Practicum with Seminar. Two sem hours each

Students will participate in an organized health care setting for at least 250 clock hours. The practicum is to be supervised by a licensed psychologist on a regular, continuous and scheduled basis. *Credit/no credit.*

Prereq: PSY 641 Prepracticum I: Assessment, PSY 651 Prepracticum II: Research, and PSY 661 Prepracticum III: Individual Treatment or PSY 671 Prepracticum IV: Treatment in Systems and departmental permission.

PSY 690, 691, 692 Thesis. One, two and three sem hours

Completion of research problem, writing thesis and defense of thesis. *Credit/no credit.*
Prereq: Departmental permission.

PSY 697, 698, 699 Independent Reading. One, two and three sem hours (Formerly PSY 591, 592, 593)

Supervised reading of psychological literature to provide in-depth understanding of a selected psychological problem.

Prereq: One course orienting student to the problem area and departmental permission.

PSY 743 Psychopathology. Three sem hours (Formerly PSY 643)

A study of behavior disorders with emphasis upon current research methodologies, special problems and theoretical formulations, including controversial issues and social and ethical considerations.

Prereq: Twenty hours in psychology, including PSY 360 Abnormal Psychology or departmental permission.

PSY 750 Clinical Psychology. Three sem hours (Formerly PSY 650)

An overview of the field of clinical psychology, including the history of clinical psychology, professional practice, ethics, legal issues and current critical issues.

Prereq: Twenty hours in psychology and departmental permission.

PSY 751 Psychotherapy. Three sem hours (Formerly Dynamic Psychotherapy)

Principles of psychological interviewing, psychotherapy and psychotherapeutic techniques.

Prereq: Graduate status in M.S. clinical program or allied graduate programs (social work, educational psychology, guidance and counseling).

PSY 762 The Wechsler Intelligence Tests. Four sem hours (Formerly PSY 662, 762 Individual Testing I)

Training and supervised experience in the administration and interpretation of the WISC and WAIS tests, plus a review of the relevant clinical research literature.

Prereq: Departmental permission.

PSY 763 Individual Testing II. Four sem hours (Formerly PSY 663)

Training and supervised experience in cognitive assessment with Binet scales and introduction to assessment instruments in related areas of infant development, visual-motor perception, auditory perception, academic achievement and adaptive behavior functioning; focus on school-age children.

Prereq: PSY 762 The Wechsler Intelligence Tests and departmental permission.

PSY 770 Personality Evaluation I. Four sem hours (Formerly PSY 670)

An introduction to individual clinical tests in the study of personality diagnosis. Includes learning to administer, score and interpret the MMPI and 16 PF. Entails a knowledge of the clinical assessment research literature covering the reliability of each testing method.

Prereq: Departmental permission.

PSY 771 Projective Techniques. Four sem hours (Formerly PSY 671, Personality Evaluation II)

Introduction to administration, scoring and interpretation of projective techniques with special emphasis upon the Rorschach and TAT.

Prereq: Departmental permission.

PSY 775 Theory of Psychological Testing. Three sem hours (Formerly PSY 660)

Assumptions, rationale and statistical foundation of psychological tests used in differential diagnosis.

Prereq: Twenty hours in psychology and departmental permission.

PSY 788 Practicum in Clinical Psychology I. Three sem hours (Formerly PSY 680)

Supervised psychological testing and interviewing in a clinical setting. *Credit/no credit.*

Prereq: PSY 750 Clinical Psychology, PSY 762 The Wechsler Intelligence Tests and departmental permission.

PSY 789 Practicum in Clinical Psychology II. Three sem hours (Formerly PSY 681)

Supervised psychological testing and counseling in a clinical setting, plus completion of a research project in that setting. *Credit/no credit.*

Prereq: PSY 788 Practicum in Clinical Psychology I and departmental permission.

PSY 793 Seminar in School Psychology. One sem hour (Formerly PSY 696)

Bi-weekly seminar for presentation and discussion of critical issues and problems in school psychology, including case studies, role definitions, ethical problems, inter and intra-professional relationships and research findings.

Four semester hours required on degree program. Credit/no credit.

Prereq: Admission to the school psychology program and departmental permission.

PSY 794, 795 Internship in School Psychology. Three sem hours each

A full time supervised experience in school settings in which student demonstrates proficiencies acquired and acquires new skills and knowledge best learned in field settings.

Prereq: Permission of coordinator of school psychology program.

MASTER OF ARTS IN SOCIOLOGY

The M.A. program in sociology is designed to prepare students for: careers in business, industry and government at local, state and federal levels; further graduate work leading toward the Ph.D. in sociology; and post-secondary teaching.

ADMISSION REQUIREMENTS

To qualify for admission to the M.A. program in sociology, applicants must have an undergraduate grade point average of at least 2.5 ("A" = 4.0) with a 3.0 in their major, or demonstrate the ability to do quality graduate work by attaining a score at the 60th percentile on the Graduate Record Exam. In addition, they must have completed the following undergraduate courses or their equivalents:

SOC 250 Elementary Social Statistics
SOC 304 Methods in Sociological Research

SOC 403 Modern Sociological Theory

Applicants who have not completed one or more of these courses may be admitted conditionally to the program with the permission of the program chairperson. Courses required to make up deficiencies in sociology will be arranged with the graduate adviser in the Sociology Department and will be above and beyond (and sometimes prior to) the 31 hours of requirements.

COURSE REQUIREMENTS

1. Concentration area (21 sem hours)
SOC 503 The Family as an Institution (3)
SOC 513 Social Deviance (3)
SOC 630 Advanced Social Statistics (3)
SOC 640 Advanced Sociological Theory (3)
SOC 647 Contemporary Community Structure (3)
SOC 677 Advanced Methods in Sociological Research (3)
SOC 678 Methods in Social Program Evaluation (3)
2. Additional graduate sociology electives as approved by graduate adviser in the Sociology Department (zero to six)
3. Cognate courses in other fields, as approved by graduate adviser in the

Sociology Department (zero to six hours)

4. Master's Thesis (four hours) *or* Non-thesis Option (four hours) (see options)
TOTAL (31 hours)

Selected 400 level undergraduate courses in sociology and anthropology may be taken for graduate credit in consultation with the graduate adviser. Graduate students in sociology may take courses SOC 500-509 for elective credit as part of their course requirements only upon the approval of the graduate adviser in the Sociology Department. Graduate students not majoring in sociology but desiring a cognate in the department may also elect these courses for cognate credit in consultation with their advisers.

All graduate students in sociology are required to have their programs approved by the graduate adviser in the Sociology Department prior to registration each semester.

FAMILY SPECIALTY CONCENTRATION

The family specialty concentration within the master's degree curriculum in sociology provides knowledge and skills in theory and methodology with specific emphasis on the family as a social institution. The program is designed to prepare students for more responsible positions in the public and private sector serving families. It serves the following educational and career goals:

1. achievement of basic academic knowledge for students preparing to pursue the Ph.D. in sociology or teach at the community college level;
2. increased knowledge and skills for students already employed in applied fields of sociology, especially in agencies serving or working with families in such settings as social service agencies, schools, courts, hospitals or community education;
3. knowledge and skills to prepare students for careers in family sociology.

Family Specialty Concentration

Concentration area (25 hours)

SOC 503 The Family as an Institution (3)

SOC 630 Advanced Social Statistics (3)

SOCIOLOGY

Edward Green
(Acting) Department Head
712 Pray-Harrold
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Patricia Ryan
Coordinator of Advising
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487-1073

Joseph Rankin
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The Sociology Department offers two graduate degree programs; one in sociology, and one in criminology and criminal justice. A family specialty concentration and a specialty concentration in evaluation and applied research are also available within the sociology degree.

Evaluation and Applied Research Specialty

The evaluation and applied research specialty within the master's degree curriculum in sociology would provide knowledge and skills in theory and general methodology, but with specific emphasis on the evaluation of ongoing programs. The option is designed to prepare students for more responsible positions in the applied areas of sociology. It would serve the following educational and career goals:

1. knowledge and skills to prepare students for careers in evaluation and applied research;
2. increased knowledge and skills for students already employed in applied fields of sociology, either in the private sector or in agencies serving or working with populations in such settings as social service agencies, schools, courts, prisons, police departments, hospitals or community education;
3. achievement of basic knowledge for students preparing to pursue the Ph.D. in sociology or teach at the community college level.

Evaluation and Applied Research Specialty

SOC 630 Advanced Social Statistics (3)
 SOC 640 Advanced Sociological Theory (3)

or

SOC 643 Organizations and Networks (3)
 SOC 647 Contemporary Community Structure (3)
 SOC 677 Advanced Methods in Sociological Research (3)
 SOC 678 Methods in Social Program Evaluation (3)

SOC 695 Program Evaluation Skills (3)
 One of the following:

SOC 540 Population (3)
 SOC 636 Qualitative Analysis (3)
 SOC 641 Theory Construction and Verification (3)

Cognates (0-6 hours)

Electives (0-6 hours)

SOC 662 Supervised Field Experience (2)* and non-thesis option (see option, page 117) (4)
 or

SOC 690, 691, 692 Thesis (4)

*Students must enroll in SOC 662 two semesters; thus four hours.

SOC 640 Advanced Sociological Theory (3)

or

SOC 643 Organizations and Networks (3)

SOC 646 Research in Family Interaction (3)

SOC 662 Supervised Field Experience (4)*

SOC 677 Advanced Methods in Sociological Research (3)

SOC 678 Methods in Social Program Evaluation (3)

SOC 513 Social Deviance (3)

or

SOC 647 Contemporary Community Structure (3)

Electives (three to five hours)

Master's Thesis/Non-thesis Option (four hours) (see options page 117)

TOTAL (32-34 hours)

*Two semesters of supervised field experience that is approved by the department to provide either experience in family research or some application of family sociology.

MASTER OF ARTS IN CRIMINOLOGY AND CRIMINAL JUSTICE

The master's degree curriculum in criminology and criminal justice serves the following educational and career goals:

1. the attainment of advanced education for persons who wish to enter careers in post-secondary education;
2. the development of skills in research and program planning and evaluation in criminology and criminal justice;
3. the strengthening of the professional qualifications of persons employed in the fields of criminal justice.

The analytical and evaluative skills offered by this program should enable students to identify, evaluate and assess the often conflicting objectives of criminal justice and to apply this knowledge to the investigation of basic issues and practical problems in criminology and the administration of criminal justice.

ADMISSION REQUIREMENTS

Applicants must have at least a 3.0 ("A" = 4.0) average in their undergraduate work or demonstrate the ability to do quality graduate work by attaining a score at the 60th percentile on the Graduate Record Exam. In addition, they must have completed the following undergraduate courses or their equivalent:

- SOC 250 Elementary Social Statistics
- SOC 304 Methods in Sociological Research
- SOC 371 Crime and Delinquency
- SOC 372 Criminal Justice in Contemporary Society

A grade of no less than "B" is required in SOC 250 Elementary Social Statistics and SOC 304 Methods in Sociological Research. Applicants who have not completed one or more of these courses may be admitted conditionally to the program with the permission of the program chairperson and complete them while taking required graduate courses.

COURSE REQUIREMENTS

The degree program consists of 31 hours of credit apportioned as follows:

1. Core Courses
 - SOC 412 Law and Society (3)
 - SOC 513 Social Deviance (3)
 - SOC 610 Theories of Criminal Behavior (3)
 - SOC 611 Sociology of Crime and Its Correction (3)
 - SOC 647 Contemporary Community Structure (3)
 - SOC 677 Advanced Methods in Sociological Research (3)
 - SOC 678 Methods in Social Program Evaluation (3)
 2. Master's Thesis (four hours) or Non-thesis Option (four hours) (see options)
 3. Electives (zero to six)
 4. Cognate Courses (to be approved by the program chairperson) (zero to six)
- Total (31)

THESIS REQUIREMENT

Each student may choose to write a thesis as part of either the Master of Arts program in sociology or criminology and criminal justice (four hours of the graduate program are set aside for thesis preparation). The subject of the thesis is determined by the student and the advisers in light of the special interests of the student. The completed thesis must be approved by the department.

NON-THESIS OPTION

Students who select the non-thesis option must submit *two* essays based on papers completed in graduate courses but of higher quality than the usual term paper. Students choosing this option would be required to complete 31 hours of coursework. A paper accepted as an essay to meet this option must meet the requirements established by the department and be approved by the department. The topic of the paper must deal with a substantive theoretical issue in sociology, criminology and criminal justice or a methodological issue. At least one of the essays must be in the area of the student's speciality (i.e., general sociology, criminology and criminal justice, evaluation and applied research).

SOCIOLOGY COURSES

- SOC 500 Man in Society. Two sem hours**

Basic concepts, theory and analysis of social structures, social process and social disorganization. *Not open to students who have credit in SOC 105 Introductory Sociology.*

SOC 501 Contemporary Society. Two sem hours

Basic sociological concepts and principles in an understanding of contemporary society; sociological research studies will be analyzed in detail. *Not open to students who have credit in more than two courses in sociology. Prereq: SOC 105 Introductory Sociology or SOC 500 Man in Society.*

SOC 502 Racial and Cultural Minorities. Two 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. *Not open to students with credit in SOC 314 Racial and Cultural Minorities. Prereq: SOC 105 Introductory Sociology or SOC 500 Man in Society.*

SOC 503 The Family as an Institution. Three sem hours (Formerly Marriage and the Family)

The course highlights changes in marriage, family composition, social relations and roles, as well as the mutual interdependence between these and other institutions of society. It begins with the traditional pre-industrial or pre-urban family, showing how and why the family began changing at a rapid rate and exploring the problems of transitional phases. The present family with its middle class ideals is then examined closely. Finally, several trends in modern families are identified and some tentative predictions about future families and alternate family forms are made. *Not open to students with credit in SOC 450 The Family. Prereq: SOC 105 Introductory Sociology or SOC 500 Man in Society.*

SOC 504 Population. Three sem hours

An examination of the determinants and consequences of population dynamics, with specific emphasis on fertility, mortality and migration. Also ex-

amination of the relationship between human numbers and resources and its politico-economic implications. Makes use of computer simulation to better understand these concepts. *Not open to students with credit in SOC 334 Population.*

Prereq: SOC 105 Introductory Sociology or SOC 500 Man in Society.

SOC 505 Sociology of Science and Technology. Three sem hours

An introduction to the sociology of the scientific and technological communities and to the social processes involved in changes in science and technology.

Prereq: Graduate standing or permission of instructor.

SOC 506 Criminology. Three sem hours

The study of the nature, measurement, types and causes of crime. *Not open to students with credit in SOC 371 Crime and Delinquency.*

Prereq: SOC 105 Introductory Sociology or SOC 500 Man in Society.

SOC 507 Criminal Justice in Contemporary Society. Two sem hours

The course gives a critical analysis of various components of criminal justice. Interrelationships to broader societal processes are stressed. Focus is directed on the police, courts and parts of the punitive/correctional apparatus.

Prereq: SOC 105 Introductory Sociology or SOC 500 Man in Society.

SOC 508 Social Psychology. Two 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. The effect of group membership upon individual behavior.

Not open to students with credit in SOC 308 Social Psychology or PSY 308 Social Psychology.

Prereq: SOC 105 Introductory Sociology or SOC 500 Man in Society and PSY 101 or PSY 102 General Psychology.

SOC 509 Personality and Social Systems. Two sem hours

The cross-cultural study of personality and socio-cultural systems. Attention is paid to modal personality types as these relate to group structure, socialization

and social structure. Individual differences are not studied. *Not open to students with credit in ANT/SOC 309 Culture and Personality.*

Prereq: SOC 105 Introductory Sociology or SOC 500 Man in Society or ANT 135 Cultural Anthropology or ANT 505 Cultural Anthropology.

SOC 513 Social Deviance. Three sem hours

The development of deviant self-conceptions; social psychological processes of group alienation and individual estrangement. Deviant behavior patterns and the development of deviant careers; theories of deviance.

Prereq: At least two courses in sociology.

SOC 515 Sociology of Women. Three sem hours

The course examines the changing role of women in American institutions especially in the world of work and in the family. Material on minority and working-class women will be included.

Prereq: Graduate standing or permission of instructor.

SOC 547 Advanced Studies in Criminology. Three sem hours

An intensive analysis of selected problems in criminology and the application of criminology to policies and programs of crime prevention and control.

Prereq: SOC 371 Crime and Delinquency or SOC 506 Criminology and SOC 372 Criminal Justice in Contemporary Society or SOC 507 Criminal Justice in Contemporary Society.

SOC 610 Theories of Criminal Behavior. Three sem hours (Formerly SOC 510)

Consideration of major theories of criminal delinquent causation. Emphasis on sociological factors in criminal acts and dynamics of criminal and delinquent behavior.

Prereq: At least two courses in sociology, including SOC 371 Crime and Delinquency.

SOC 611 Sociology of Crime and Its Correction. Three sem hours (Formerly SOC 511)

Punishment, rehabilitation, contemporary correctional policies. The courts and criminal responsibility. The social structure of correctional organizations and institutions and their effect on the

correctional process.

Prereq: At least two courses in sociology, including SOC 371 Crime and Delinquency.

SOC 630 Advanced Social Statistics. Three sem hours (Formerly SOC 530)

This course will focus considerable attention on non-parametric statistics but also will examine the problem of controlling for variables in a statistical sense. Certain of the classical techniques of multivariate analysis will be included.

Prereq: SOC 250 Elementary Social Statistics.

SOC 636 Qualitative Analysis. Three sem hours (Formerly SOC 536)

An examination of the methods and techniques of qualitative analysis in sociology. Research will be conducted by class members and reviewed in seminar presentations.

Prereq: SOC 304 Methods in Sociological Research and SOC 403 Modern Sociological Theory.

SOC 640 Advanced Sociological Theory. Three sem hours (Formerly SOC 540)

An analysis of contemporary theoretical schools of thought in sociology.

Prereq: SOC 304 Methods in Sociological Research and SOC 403 Modern Sociological Theory.

SOC 641 Theory Construction and Verification. Three sem hours (Formerly SOC 541)

Analysis of contemporary strategies in theory, construction and verification. Problems of validity and reliability will be emphasized. Open to non-sociology majors with permission of the instructor.

Prereq: SOC 304 Methods in Sociological Research and SOC 403 Modern Sociological Theory.

SOC 642 Social Stratification Theory and Research. Three sem hours (Formerly SOC 542)

A comprehensive study of the theories of social stratification, an examination of the problems encountered in attempts at empirical verification of these theories and an exploration of current research relating to social stratification.

Prereq: SOC 310 Contemporary American Class Structure or an undergraduate degree in sociology.

SOC 643 Organizations and Networks.
Three sem hours

How organizations are created and changed as they struggle to achieve their goals. Theoretical readings and case studies on organizational and inter-organizational dynamics provide theoretical and practical knowledge for students.

Prereq: Graduate standing in sociology or permission of the instructor.

SOC 645 Advanced Social Psychology.
Three sem hours (Formerly SOC 545)

This course is an in-depth study of interpersonal behavior and group processes with special emphasis on the effects of group membership on individual behavior. Topics studied may include attitudes, interpersonal influence and attraction and leadership.

Prereq: SOC 250 Elementary Social Statistics, SOC 304 Methods in Sociological Research and SOC 308 Social Psychology.

SOC 646 Research in Family Interaction.
Three sem hours (Formerly SOC 551)

Review of research on family interaction, with particular emphasis on experimental observational studies. Power structure role differentiation, communication patterns and coalition formation.

Prereq: Nine hours of sociology.

SOC 647 Contemporary Community Structure. **Three sem hours (Formerly SOC 555)**

Theoretical perspectives in the analysis of urban communities including urban change, the development of stratification patterns and power structures and the role of various urban institutions.

Prereq: Nine hours of sociology.

SOC 656 Human Ecology and Community Development. **Three sem hours (Formerly SOC 556)**

An analysis of the forms and development of the urban community; spatial and temporal patterns, organization of urban functions, rural-urban relationships and the current metropolitan trend in the U.S.

Prereq: Nine hours of sociology.

SOC 662 Supervised Field Experience.
Two sem hours (Formerly SOC 594)

Supervised internship in a community agency such as a correctional institution, an enforcement agency, human relations committee, city planning agency or in a project for the rehabilitation of persons in culturally or economically deprived segments of the community. Students are ordinarily placed for two consecutive semesters.

Prereq: Departmental permission.

SOC 677 Advanced Methods in Sociological Research. **Three sem hours (Formerly SOC 535)**

Relationship of theory and research is stressed. Consideration of the research process as a decision-making situation both on the general level of research design and the specific level of special techniques. The process and logic of data analysis.

Prereq: SOC 304 Methods of Sociological Research.

SOC 678 Methods in Social Program Evaluation. **Three sem hours (Formerly Research Methods in Criminology and Criminal Justice Evaluation/Research Methods in Social Program Evaluation)**

The course is designed to train students in strategies, techniques and issues in social program evaluation. It will be concerned both with the design of program evaluations and with their implementation in various social settings.

Prereq: SOC 304 Methods of Sociological Research.

SOC 679, 680, 681 Special Topics in Sociology. **One, two and three sem hours (Formerly SOC 539)**

The content and form of this course will be experimental and vary from year to year. Special topics in sociology not given in usual course offerings but of sociological importance will be covered. The exact title of the course will be announced in the appropriate schedule.

SOC 683 Workshop in Crime and the Community. **Two sem hours (summer only) (Formerly SOC 595)**

A brief, intensive exploration of specific aspects of crime and its relationship to social organization. *Not open to students with credit in SOC 371 Crime and Delinquency.*

Prereq: SOC 105 Introductory Sociology or SOC 500 Man in Society.

SOC 688 Cooperative Education. **Three sem hours**

Practical experience in business, industrial or governmental settings which provides job skills.

Prereq: Regular admission to one of the departmental graduate programs and six hours of graduate credit in sociology.

SOC 690, 691, 692 Thesis. **One, two and three sem hours**

Credit/no credit.

Prereq: Departmental permission.

SOC 694 Seminar in Sociology. **Two sem hours (Formerly SOC 596)**

The intensive exploration of theoretical and methodological issues in a selected area of sociology. The topic will be announced in the class schedule issued prior to registration.

Prereq: Departmental permission.

SOC 695 Program Evaluation Skills Development Seminar. **Three sem hours**

This course offers experience applying the strategies and techniques of evaluation research to specific contexts. Students are apprenticed to university institutes to assist project directors in conducting specific researches.

Prereq: SOC 678 Methods in Social Program Evaluation.

SOC 697, 698, 699 Independent Studies. **One, two and three sem hours (Formerly SOC 597, 598, 599)**

An intensive study of a problem or group of problems under the direction of a member of the sociology faculty.

Prereq: Departmental permission.

ANTHROPOLOGY COURSES

ANT 505 Cultural Anthropology.
Three sem hours

Technology, social structure, political institutions, warfare, kinship and the family, religion and magic, art, recreation and education in the cultures of non-literate peoples. Cultural dynamics; applied anthropology. *Not open to students with credit in ANT 135 Introduction to Cultural Anthropology.*

ANT 509 Personality and Social Systems. **Two sem hours**

The cross-cultural study of personality and socio-cultural systems. Attention is

paid to modal personality types as these relate to group structure, socialization and social structure. Individual differences are not studied. *Not open to students with credit in SOC/ANT 309 Culture and Personality.*

Prereq: ANT 135 Introduction to Cultural Anthropology or ANT 505 Cultural Anthropology, SOC 105 Introductory Sociology or SOC 500 Man in Society.

ANT 525 Anthropology of Contemporary Issues. Three sem hours

This course will look at the contributions of anthropology to an understanding of contemporary social issues. The various issues to be examined from a social and cultural perspective include violence; poverty; political, economic, educational and cross-cultural racism; ethnicity and the role of Western culture on the Third World.

ANT 681 Special Topics in Anthropology. Three sem hours

The content and form of this course will be experimental and vary from year to year. Special topics in anthropology not given in usual course offerings, but of anthropological importance, will be covered. The exact title of the course will be announced in the appropriate schedule.

Prereq: ANT 505 Cultural Anthropology or equivalent.

ANT 697, 698, 699 Independent Study in Anthropology. One, two and three sem hours

Intensive study of an anthropological problem or theory supervised by a member of the anthropology faculty on individual basis.

Prereq: Departmental permission.

OTHER COURSES

Selected 400 level undergraduate courses in sociology and anthropology may be taken for graduate credit in consultation with the graduate adviser. No more than nine (9) hours of undergraduate coursework are permitted in the earning of any graduate degree.

WOMEN'S STUDIES

Betty L. Barber
Coordinator of Advising
701-T Pray-Harroid
487-1177, 487-0194

The Master of Liberal Studies in women's studies is an interdisciplinary degree administered through the women's studies program. The primary purpose of the program is to promote an understanding of gender roles in contemporary society. The program fosters individual inquiry while providing a number of opportunities for academic development.

PROGRAM OBJECTIVES

The Master of Liberal Studies in women's studies draws upon a range of courses in the Colleges of Arts and Sciences, Business, Education, Health and Human Services and Technology.

The program leading to the degree is a highly flexible one designed to promote scholarly debate and to develop research skills. It should be helpful to those students seeking employment in business, industry or government at local, state and federal levels. Persons already employed should find this course of study useful in assisting in their professional advancement. In addition, the program provides a concentration for those students who intend to pursue a doctoral degree, while also providing preparatory training for those desiring to teach at the secondary, junior college or community college level.

ADMISSION REQUIREMENTS

Applicants for the M.L.S. in women's studies must have completed a bachelor's degree, but no particular field or major is required.

Applicants must meet both the undergraduate grade point average (2.5) for admission and the grade point average for graduation established by the Graduate School.

Students not meeting regular admission requirements may be admitted on a conditional basis with the approval of the program coordinator. Conditionally admitted students must complete twelve semester hours of course work in courses specified by the program coordinator and maintain at least a 3.3 GPA. Students who successfully meet the conditional requirements will be granted regular degree admission.

PROGRAM DESCRIPTION AND DEGREE REQUIREMENTS

It is expected that students will develop competencies through a range of courses elected to fulfill the primary and complementary concentrations in the program. There are three components:

1. primary concentration - 12 semester hours;
2. complementary concentration - 12 semester hours;
3. capstone experience - six semester hours.

Primary Concentration (12 semester hours)

Six hours required:

WMS 550 Feminist Thought (3)
WMS 695 Seminar: Research on Women's Issues (3)

Six hours from the following:

SOC 515 Sociology of Women (3)
HIS 525 Technology, Social Change and the Role of Women (3)
PSY 542 Women and Mental Health (2)
ENG 592 Special Topics: Language of Women (3)
HEC 632 The Man-Woman Relationships in Modern Society (2)
HEC 642 Family in the Middle and Later Years (2)
WMS 592 Special Topics (3)
WMS 697, 698, 699 Independent Study/Research (1,2,3)

Complementary Concentration (12 semester hours)

Students must elect at least two concentrations with not less than four semester hours in each concentration. Areas of concentration include:

History

HIS 505 Historical Method (3)
HIS 525 Technology, Social Change and the Role of Women (3)
HIS 541 The United States, 1825-1860; Ferment and Reform (2)

Psychology

PSY 542 Women and Mental Health (2)
PSY 550 Dynamics of Human Behavior (2)
PSY 551 Psychology of Death and Dying (2)
PSY 605 Research Design (3)

Sociology

SOC 444 Sociology of Sex Roles (3)
SOC 515 Sociology of Women (3)
SOC 630 Advanced Social Statistics (3)
SOC 677 Advanced Methods in Sociological Research (3)

Physical Education

PED 505 Basic Statistics (2)
PED 677 Research Techniques (2)

Educational Leadership

EDL 611 Introduction to Adult Education (2)
EDL 623 Adult Education Administration (2)
EDL 696 Seminar: Women in Administration (3)

Educational Psychology

EDP 600 Human Development (2)
EDP 605 Mental Hygiene (2)
EDP 631 Measurement and Evaluation (2)
EDP 677 Research Techniques (2)

Home Economics

HEC 630 Problems in Family and Consumer Economics (2)
HEC 632 The Man-Woman Relationship in Modern Society (2)
HEC 642 Family in Middle and Later Years (2)
HEC 678 Research Methods and Design (3)

Capstone Experience (6 semester hours)

This requirement may be met by completing a thesis, by participating in a practicum and fulfilling the written requirements or by undertaking an independent study/research.

WOMEN'S STUDIES COURSES

WMS 525 Technology, Social Change and the Role of Women. Three sem hours

This course will examine the nature and origins of technology, the influence of its historical development from classical to modern times on women in the United States and Europe, and problems stemming from current technological advance.

WMS 542 Women and Mental Health. Two sem hours

Focus on theory and research concerning women's responses to life stresses, women as clients in psychotherapy and the role of the female mental health professional.

Prereq: One course in psychology.

WMS 543 Language of, by, for and about Women. Three sem hours

A study of women's language; how and why it differs from men's, how it affects writing style, what social effects it has and how it is changing.

WMS 550 Feminist Thought. Three sem hours

Feminist thought provides a scholarly overview of the literature and methodology of feminist studies in such disciplines as history, psychology, literature, sociology, anthropology, economics, religion, health, law and politics.

WMS 592 Special Topics. Three sem hours

Selected Topics.

WMS 630 Problems in Family Finance. Two sem hours

Principles of basic family financial planning, its relationship to economic conditions, social trends and the family life cycle. Special concern given to procedures in periods of financial emergency. Planning for security and protection against critical family distress.

**WMS 632 The Man-Woman
Relationship in Modern Society.
Two sem hours**

Consideration of the changes and dynamics of interaction stimulated by emerging shifts in roles of men and women, implications of these changes for the family and society, impact of multiple roles upon various men-women relationships.

**WMS 642 Family in the Middle and
Later Years. Two sem hours**

Individual, family and community planning for the later years of life; developing potentialities; maintaining health; providing reasonable security; building interpersonal relationships. Lectures, field trips and demonstrations.

Prereq: HEC 622 Family Development.

**WMS 686, 687, 688, 699 Practicum in
Women's Studies. One, two,
three and four sem hours**

This course will provide supervised field placement in places suitable to a candidate's career goals including women's centers, women's shelters, personnel and administrative centers in large corporations, neighboring community colleges and governmental agencies.

Prereq: Departmental permission.

**WMS 690, 691, 692 Thesis/Final
Report. One, two and three
sem hours**

A substantial and original undertaking in a scholarly research designed to deepen and focus the individual student's interests. The preparation of the thesis will be consistent with the highest professional standards.

Prereq: Departmental permission.

**WMS 693, 694, 695, 696 Seminar in
Women's Studies. One, two,
three and four sem hours**

A critical survey of a particular topic which will change from semester to semester.

Prereq: Departmental permission.

**WMS 695 Seminar: Research on
Women's Issues. Three sem hours**

Investigation of research on women in education, work and families. A culminating experience leading to integration of interdisciplinary research.

Prereq: WMS 550 Feminist Thought.

**WMS 697, 698, 699 Independent
Study/Research. One, two and
three sem hours**

Intensive study of a problem or theory relevant to women's studies supervised by a member of the women's studies faculty on an individual basis.

Prereq: Departmental permission.

OTHER COURSES

The following upper division undergraduate courses may be elected for graduate credit. Consult Undergraduate Catalog for descriptions and prerequisites.

WMS 479 Special Topics (3)

WMS 498 Independent Study (2)

COLLEGE OF BUSINESS

DEAN: Joe Kent Kerby
ASSOCIATE DEAN: Patricia B. Weber

DEPARTMENTS

Accounting and Finance
Management
Marketing
Operations Research and Information
Systems

GRADUATE PROGRAMS IN BUSINESS

Graduate Business
Programs Office
517 Pray-Harrold
487-4444

The College of Business offers four graduate degree programs which provide professional preparation for management careers: the Master of Business Administration (M.B.A.) degree which is designed to establish a broad understanding of the business function; the Master of Science in accounting (M.S.A.) degree which is designed to provide an opportunity to specialize in financial management and accounting; the Master of Science in computer-based information systems (M.S.I.S.) degree designed to provide the basic conceptual framework and tools of analysis necessary to design, develop, implement and control computer based information systems; and the Master of Science in organizational behavior and development (M.S.O.D.) degree designed to provide training in solving personnel and organizational development problems.

The primary purpose of these programs is to provide high-level, professional education needed to enhance the career opportunities of men and women currently employed in business, industry and public service positions in southeastern Michigan.

In addition, these programs provide professional preparation required for men and women who contemplate pursuing management careers in business, industry and government.

GENERAL ADMISSION INFORMATION

Admission to graduate programs in the College of Business will be limited to students showing high promise of success in post-baccalaureate study in business. Various predictive measures of high promise will be used, including (a) the candidate's undergraduate grade point average, or undergraduate grade point average in the last half of the undergraduate study; and (b) the

candidate's performance on the Graduate Management Admission Test.*

Graduate Management Admission Test (GMAT) scores more than five (5) years old without active satisfactory graduate matriculation must be retaken and the required minimum score met as stated under each program.

All application materials should be received by the Graduate School, 116 Pierce Hall, Eastern Michigan University, Ypsilanti, Michigan 48197, before August 1 for consideration for fall semester; before December 1 for consideration for winter semester; and before April 1 for consideration for spring/summer sessions.

All applicants for admission must hold either the bachelor's or master's degree from a regionally accredited college or university. Admission to a master's degree program will not be granted until the applicant has completed all degree admission requirements of the Graduate School along with the requirements for the master's degree program selected.

Applicants who hold degrees from foreign colleges or universities must present a Class I or II diploma, or the equivalent thereof. If the applicant's

**The Graduate Management Admission Test is offered four times a year at sites throughout the United States and in most other countries. For information and registration materials write: Graduate Management Admission Test, Educational Testing Service, Box 966, Princeton, NJ 08541.*

native tongue is not English, a TOEFL (Test of English as a Foreign Language) score of 550 or above, or a score of 85 or above on the Michigan Test (English Language Institute, The University of Michigan) is required for admission into a degree program in the College of Business.

1. Applicants with TOEFL scores of 500-549 or Michigan Test scores of 80-84 must enroll in ESL 642 English as a Second Language for Special Purposes: Business, five semester hours, during their first semester at EMU. The student is also restricted to mathematics deficiency coursework or foundation courses until the College of Business language proficiency minimum is attained.
2. If the TOEFL score is below 500 or Michigan Test is below 80, the student must complete remedial language coursework before enrolling in any undergraduate or graduate business courses.

After completing either 1. or 2. above, the student must retake the TOEFL and achieve a score of at least 550 or retake the Michigan Test and achieve a score of at least 85 before being admitted to a business degree program. These scores must be achieved within one calendar year of the student's admission date.

Specific admission requirements for each master's degree program are indicated in the descriptions of the individual programs.

LENGTH OF PROGRAM

The length of time required to complete a business master's degree program depends upon the undergraduate preparation of the student. The program is an evening program (Monday through Thursday). Students with undergraduate business administration degrees may complete the master's program in less time than students without undergraduate course work in business. Students who attend full time will take less time than students who attend part time.

FOUNDATION/PREREQUISITE REQUIREMENT

Each business master's program has a required common body of knowledge which each student must complete before enrolling in core level graduate courses.

Eastern Michigan University offers a series of 500 level foundation courses, open only to graduate students, which cover most subjects in the common bodies of knowledge. Introductory courses are open to students admitted to any graduate level degree programs including non-business programs. These courses cannot count toward core level requirements in any graduate business program.

Once admitted into a graduate business program, graduate students who have not completed basic course work must take foundation courses. These courses are waived for those who have completed undergraduate equivalents with a "C" or better *prior* to completion of their undergraduate degree. After admittance to the program, all courses taken, including foundation courses, must be graduate courses, mathematics excepted. A grade of "B" (3.0; "A" = 4.0) or better must be earned in all of the post-baccalaureate-degree foundation courses.

UPPER LEVEL REQUIREMENTS

Upper level courses are those graduate courses, both required and elective (600 and 515 and above), which provide the 30-33 hours of advanced course work for the graduate degree. These courses are reserved for those students admitted to a graduate business program who have completed *all* foundation/prerequisite requirements.

GRADUATION REQUIREMENTS

Graduate business students must complete all foundation/prerequisite and core level requirements for the program in which they are enrolled, maintaining at least a "B" (3.0) average in courses of this type for which graduate credit is received. The student must also maintain a "B" (3.0) average in the core required courses, which are those courses that must be taken by all students in a particular program. Core level courses completed more than six years prior to graduation cannot be applied unless validated by examination.

A very few 400 level undergraduate (non foundation) courses are available for graduate credit to students with special interests or needs. Depending on specific program requirements, graduate business students may also include 500 level courses on their programs. The

combined total of 400 and 500 level courses included on a program is limited to six hours. Students must have prior written approval of their adviser and must initially enroll in the course for graduate credit.

There are also business related graduate level electives offered by departments outside the College of Business. Students may include up to six hours of graduate level electives from outside the College of Business if deemed acceptable by their advisers.

DISMISSAL FROM PROGRAM POLICIES

If a graduate student allows his/her GPA to fall below 3.0 ("B") in grades earned in courses within the College of Business, he/she will be dismissed from the program if after one 15 week or two 7½ week semesters of enrollment, he/she has not restored the GPA to a 3.0 ("B").

A graduate student will be dismissed from a graduate business program if he/she earns more than two grades below "B-" (2.7). Should a student repeat a course and earn a grade less than "B-" that grade will be counted as the second grade below a "B-" (2.7).

FACILITIES

The College of Business classrooms and lecture halls are equipped with TV monitors and have access to the educational computer facilities in the same building. There are special accounting laboratory facilities. The college maintains an information systems laboratory with mini-/microcomputer systems and data terminals, some with hard-line connections to the Instructional Computer Center, again in the same building in which the College of Business is located.

M.B.A. (MASTER OF BUSINESS ADMINISTRATION)

Charles F. Hoitash
Coordinator of Advising
517 Pray-Harrod
487-4444

M.B.A. Program Objectives

The M.B.A. is a generalist program with emphasis on practical implementa-

tion of business fundamentals. The program is designed to establish a broad understanding of the business function and its relation to society as a whole as well as the effect of social and political forces on business. Students may choose to specialize their studies in a nine credit hour concentration to develop managerial skills in a chosen area of employment.

Concentrations are available in accounting information systems, financial accounting, tax accounting, finance, international business, computer-based information systems, management science, marketing, organizational development, personnel and industrial relations, data base management and general business.

M.B.A. ADMISSION CRITERIA

Admission to the M.B.A. program is granted to those graduates of regionally accredited colleges and universities whose grades and Graduate Management Admission Test (GMAT) scores indicate an aptitude for advanced study in business. Students are not admitted to the M.B.A. program with a GMAT score below 450.

Regular Admission

The basic standards for regular admission are a 2.5 cumulative undergraduate grade point average (or a 2.75 for the last half of the undergraduate study) and a GMAT score of 450.

Conditional Admission

Conditional admission will be granted to a few students whose undergraduate grade point averages are below regular admission standards, and whose GMAT scores are correspondingly higher.

Conditionally admitted students must maintain a "B" (3.0) average in foundation courses and must maintain a "B+" average with no grade lower than a "B" and no repeats in the first 12 hours of adviser approved core courses. Conditionally admitted students must have an appropriate adviser's permission to enroll in foundation and core level courses and cannot enroll in program electives without adviser approval. Students who successfully meet the probationary requirements will be granted regular admission.

Special Student Status

Students holding Special Student status are not eligible to enroll in undergraduate or graduate business courses.

A guest student who does not seek a degree but wishes to take a few courses, or who wishes to have courses transferred to another institution's graduate program, must meet the standards for regular admission.

M.B.A. PROGRAM REQUIREMENTS

Foundation/Prerequisite Courses

Students must complete course work in each of the following foundation areas unless they have satisfactorily completed the undergraduate equivalent.

Foundation	Undergraduate Equivalent
ACC 501 (3)	Principles of Accounting (6)
LAW 503 (3)	Legal Environment of Business (3)
ECO 501 and 502 (6)	Principles of Economics (6)
FIN 502 (3)	Principles of Finance (3)
MGT 501 (3)	Principles of Management (3)
MKT 510 (3)	Marketing (3)
ORI 501 (3)	Introductory Probability and Statistics for Business (3)
ORI 502 (3)	Business Information Systems (3)
ORI 503 (3)	Production and Operations Management (3)

Some students may find it necessary to also complete the prerequisites for MTH 118 Mathematical Analysis for Social Sciences I and MTH 119 Mathematical Analysis for Social Sciences II or MTH 120 Calculus I and MTH 122 Elementary Linear Algebra.

Deficiencies

MTH 118	Mathematical Analysis for Social Sciences I, (3) or
MTH 122	Elementary Linear Algebra (2)
MTH 119	Mathematical Analysis for Social Sciences II, (3) or
MTH 120	Calculus I (4)

Core Level Requirements

The M.B.A. core consists of 30-33 hours: 21-24 hours of required courses and nine hours of electives. The required courses are:

	<i>Tool Core</i>
ORI 601	Managerial Economics
ORI 602	Techniques in Business Research
ORI 603	Quantitative Methods I
	<i>Operational Core</i>
ACC 605	Administrative Controls
MGT 605	Organizational Theory and Behavior
MKT 610	Marketing Policies and Problems
FIN 620	Financial Administration Policies
MGT 696	Management Strategy and Policy†

†*Management Strategy and Policy, a capstone case course taken at or near the end of the program, is designed to improve decision-making ability.*

Students who have an undergraduate major in accounting, finance, management or marketing can waive the required core course for that area.

Electives may be distributed among the functional areas of general business or may be used to develop a concentration in accounting, accounting information systems, finance, computer-based information systems, production and operations management, decision sciences, management, organizational development, marketing, international business and general business.

M.B.A. students may not elect more than one graduate course in their undergraduate major field and may elect no more than one 400 level approved undergraduate business course for graduate credit, and must have prior approval of the adviser. The combined total of 400 and 500 level courses included on a program is limited to six hours. (500 level foundation courses may not be used as electives.) Students may, with adviser approval, elect up to six hours of business related graduate credit from outside the College of Business.

M.B.A. students choosing to select a concentration may consider the following tracks:

Accounting Information Systems

ACC 610	Accounting Systems Design and Installation (3)
ACC 620	Advanced Managerial Accounting (3)

ACC 448G EDP Auditing and Controls (3)

Financial Accounting

ACC 615 Corporate Financial Reporting (3)
ACC 665 Theory of Accounting (3)
ACC 667 Professional Auditing (3)

Tax Accounting

ACC 585 Business Tax Planning (3)
ACC 672 Estate Tax Planning (3)
ACC 695 Seminar in Accounting (3)

Finance

FIN 615 Business Financial Markets (3)
FIN 625 Securities Analysis (3)
FIN 660 Advanced Financial Management (3)

International Business

MKT 520 International Business (3)
FIN 540 International Finance (3)
ECO 581 The International Monetary System (3)

Computer-Based Information Systems (select nine sem hours)

ORI 610 Computers and Algorithms (3)
ORI 614 Systems Analysis (3)
ORI 638 Simulation and Modeling (3)
ORI 655 Decision Support Systems (3)

Management Science (select nine sem hours)

ORI 604 Quantitative Methods II (3)
ORI 630 Linear Programming and Extensions (3)
ORI 636 Forecasting Models (3)
ORI 638 Simulation and Modeling (3)

Marketing (select nine sem hours)

MKT 630 Sales Operation Management (3)
MKT 640 Promotions Management (3)
MKT 650 Channels of Distribution and Logistics (3)
MKT 675 Market Planning and Forecasting (3)

Organizational Development (select nine hours)

MGT 628 Human Resource Development (3)
MGT 638 Improving the Quality of Worklife (3)
MGT 648 Communication and Organizational Development (3)
MGT 658 Techniques of Organizational Development (3)
MGT 678 Survey and Diagnostic Methods in Organizational Development (3)

Personnel and Industrial Relations (select nine sem hours)

MGT 609 Personnel Administration (3)
MGT 618 Staffing Organizations (3)
MGT 628 Human Resource Development (3)
MGT 638 Improving the Quality of Worklife (3)

Data Base Management (select nine hours)

ORI 610 Computers and Algorithms (3)
ORI 614 Systems Analysis (3)
ORI 628 Advanced Data Structures (3)
ORI 645 Database Management Systems (3)

M.S.A. (MASTER OF SCIENCE IN ACCOUNTING)

M.S.A. ADMISSION CRITERIA

Regular Admission

Academic performance, Graduate Management Admission test score[‡] and work experience are significant factors considered by the M.S.A. Program Committee as a part of the admission process. As a minimum for regular admission, the applicant must have an undergraduate grade point average of 2.8 overall (on a 4.0 scale) or 3.0 in the last half of undergraduate course work and a GMAT score of 475.

In addition, each applicant must submit two letters of recommendation to the chairman of the M.S.A. Program Committee. One of the letters should come from a college level instructor and the other from a past or present employer. The committee will also consider the other information that the applicant may care to supply (e.g., extracurricular activities.)

Conditional Admission

Conditional admission is also possible for some applicants who do not meet the GPA criteria for regular admission. The applicant should contact the chair-

Mohsen Sharifi
Coordinator of Advising
515-H Pray-Harrod
487-3320

The M.S.A. program is designed to establish an in-depth understanding of theoretical and practical accounting concepts beyond the level attained in the bachelor's degree.

man of the M.S.A. Program Committee in the Department of Accounting and Finance to discuss this form of admission.

Special Student Status

Students holding Special Student status are not eligible to enroll in undergraduate or graduate business courses.

[‡]The Graduate Management Admission Test should be taken at the earliest convenient date to avoid delays in the processing of one's application to the M.S.A. program.

M.S.A. PROGRAM REQUIREMENTS

Program Design

Upon admission to the M.S.A. program, each student is required to prepare a total program of course work leading to the M.S.A. degree. The program is reviewed with the student by the M.S.A. Program Committee (or its representative) to ascertain that the program is suitable for the student's background and career goals. The program of course work becomes the student's degree requirement when accepted by the student and the M.S.A. Program Committee. Subsequent changes in course work must be approved by the M.S.A. Program Committee.

Foundation/Prerequisite Courses

Students must complete course work in each of the following foundation areas unless they have satisfactorily completed the undergraduate equivalent.

Foundation	Undergraduate Equivalent
ACC 501 (3)	Principles of Accounting (6)
FIN 502 (3)	Principles of Finance (3)
MGT 501 (3)	Principles of Management (3)
MKT 510 (3)	Marketing (3)
ORI 501 (3)	Introductory Probability and Statistics for Business (3)
ORI 502 (3)	Business Information Systems (3)
LAW 503 (3)	Legal Environment of Business (3)
ECO 501 & 502 (6)	Principles of Economics (6)

In addition the student must complete the following:

ACC 340	Intermediate Accounting I (3)
ACC 341	Intermediate Accounting II (3)
ACC 342	Managerial Cost Accounting (3)
ACC 344	Tax Accounting (3)
MGT 490	Business Policy* (3)

**To be taken upon completion of the foundation /prerequisite courses.*

Deficiencies (six hours)

MTH 118	Mathematical Analysis for Social Sciences I (3) <i>or</i> Elementary Linear Algebra (2)
MTH 122	Mathematical Analysis for Social Sciences II (3) <i>or</i> Calculus I (4)

M.S.A. Courses

The M.S.A. program requires the completion of 30 semester hours of course work divided into required core courses and elective courses as follows:

Required Core Courses (24 hours)

ACC 610	Accounting Systems Design and Installation (3)
ACC 615	Corporate Financial Reporting (3)
ACC 620	Advanced Managerial Accounting (3)
ACC 665	Theory of Accounting (3)
ACC 695	Seminar in Accounting (Tax Research) (3)
MGT 605	Organizational Theory and Behavior (3)
ORI 602	Techniques in Business Research (3)
ORI 603	Quantitative Methods I (3)

Electives (six hours)*

ACC 544	International Taxation and Accounting (3)
ACC 667	Professional Auditing (3)
ACC 672	Estate Tax Planning (3)
ACC 699	Independent Studies (3)
ACC G448	EDP Auditing and Controls (3)

**Three hours in accounting must be taken from this list. The other three hours may be taken in other areas subject to the M.S.A. coordinator's approval.*

Total semester hours required: 30

NOTE: Students wishing to take the CPA examination should be sure to elect an auditing course (ACC 667 Professional Auditing) and a governmental accounting course.

Courses may be elected from other fields with the advice and consent of the program adviser.

M.S.I.S. (MASTER OF SCIENCE IN COMPUTER BASED INFORMATION SYSTEMS)

V.M. Rao Tummala
Coordinator of Advising
511-A Pray-Harrod
487-2454

The M.S.I.S. is a program of study for students seeking a solid background in systems analysis, management of computer related activities, design of information systems, modeling and simulation and database management.

The emphasis is on information systems and not computer science.

M.S.I.S. ADMISSION CRITERIA

Admission to the M.S.I.S. program is granted to those graduates of regionally accredited colleges and universities whose grades and Graduate Management Admission Test (GMAT) scores indicate an aptitude for advanced study in computer-based information systems.

Regular Admission

Regular admission will be granted to students who have completed the GMAT with a score of 450 or higher and who have either (a) a cumulative undergraduate grade point average of 2.75; or (b) an undergraduate grade point average of 3.0 for the last half of the undergraduate study.

Conditional Admission

Students whose undergraduate grade point average is above 2.5 but below the 2.75 requirements may qualify for conditional admission.

Conditionally admitted students must maintain a "B" (3.0) average in foundation courses and a "B+" average, with no grade below "B" and no repeats, in 12 hours of adviser approved core courses. Conditionally admitted students must have an appropriate ad-

viser's permission to enroll in more than 12 hours in this status. Students who successfully meet the probationary requirements will be granted regular admission.

Special Student Status

Students holding Special Student status are not eligible to enroll in undergraduate or graduate business courses.

M.S.I.S. PROGRAM REQUIREMENTS

Foundation/Prerequisite Courses

Students must complete course work in each of the following foundation areas unless they have satisfactorily completed the undergraduate equivalent.

Foundation	Undergraduate Equivalent
MTH 120 (4)	Calculus I (4)
MTH 122 (2)	Elementary Linear Algebra (2)
ORI 501 (3)	Introductory Probability and Statistics for Business (3)
ORI 465 (3)	Business Statistics II (3)
ORI 502 (3)	Business Information Systems (3)
ORI 219 (3)	COBOL Programming (3)
CSC 239 (3)	Assembly and Machine Language Programming (3)
ACC 501 (3)	Principles of Accounting (6)
FIN 502 (3)	Principles of Finance (3)
ECO 501 & 502 (6)	Principles of Economics (6)
LAW 503 (3)	Legal Environment of Business (3)
MGT 605 (3)	Organizational Theory and Behavior (3)
MKT 510 (3)	Marketing (3)
ORI 503 (3)	Production and Operations Management (3)
*MGT 490 (3)	Business Policy (3)

**To be taken upon completion of the foundation/prerequisite courses.*

Core, Concentration and Elective Requirements

The M.S.I.S. requires a minimum of 33 hours of course work in addition to any foundation or prerequisite course requirements. The program consists of a required core directly related to information systems. In addition, students must select one of the following alternative options:

Option A
Master's thesis (6)*

Option B
ORI 696 System Development Projects (3); and
one of the following adviser approved courses:
ORI 604 Quantitative Methods II (3)
ORI 620 Data Networks (3)
ORI 630 Linear Programming and Extensions (3)
ORI 632 Nonlinear Programming (3)
ORI 634 Stochastic Models (3)
ORI 636 Forecasting Models (3)
ORI 640 Operations Management (3)
ORI 675 Language Processors (3) or other approved 600 level College of Business courses.

**Students are required to develop a research paper or thesis related to the field of information systems in which they are interested. The paper is developed as a part of the core requirements. Successful completion of the M.S.I.S. program includes a satisfactory research paper or thesis.*

Required Core in Information Systems (24 hours)

All M.S.I.S. students must take each of the following courses:

ORI 610 Computers and Algorithms (3)
ORI 614 Systems Analysis (3)
ORI 624 Computer Operating Systems (3)
ORI 625 Software Engineering Management (3)
ORI 628 Advanced Data Structures (3)
ORI 638 Simulation and Modeling (3)
ORI 645 Database Management Systems (3)
ORI 655 Decision Support Systems (3)

Restricted Elective*
(three semester hours)
Select one course from the following:

ORI 630 Linear Programming and Extensions (3)
ORI 636 Forecasting Models (3)
ORI 640 Operations Management (3) or other approved 600 level College of Business courses:

**The restricted elective may not be applied to Option B above.*

*ORI 601, 602, and 603 may not be included in the program of study.
Total semester hours required: 33.*

M.S.O.D. (MASTER OF SCIENCE IN ORGANIZATIONAL BEHAVIOR AND DEVELOPMENT)

P. Nick Blanchard
Coordinator of Advising
504-J Pray-Harrod
487-0453

Great changes and transitions are taking place in our society and in our work lives. Rapid advances in technology, increasing foreign competition and dwindling resources have changed the way Americans do business. The American work force has changed also. Today's workers are more educated and increasingly concerned about the quality of their work lives.

As a result of the changes in society and in our work places, today's organizations need managers who are capable of planning, managing and implementing change activities. In addition, there is a need for those who can develop processes of diagnosing organizational needs and developing strategies to meet those needs. From these changes and demands come growing opportunities for professionals who have advanced training in organizational behavior and development.

MISSION OF THE M.S.O.D. PROGRAM

To develop professionals who:

understand organizational change and can plan effectively for and implement change strategies;

are capable of assessing the match between an organization's structure, processes and people, diagnosing the cause of any mismatches and designing strategies for improving the match;

can manage and develop an organization's human resources at a profit to both the organization and its members;

can contribute to the knowledge base of the behavioral and organizational sciences; and

provide the community with access to the expertise of the faculty and students.

M.S.O.D. ADMISSION CRITERIA

Regular Admission

Applications for admission to the M.S.O.D. program must be received in the Graduate School Office and reviewed by the M.S.O.D. Advisory Committee. Criteria for possible regular admission to the M.S.O.D. program include:

1. **GPA Requirement:** You must have either (a) a cumulative undergraduate grade point average of 2.75 (on a 4.0 scale); or (b) a grade point average of 3.0 for the last half of undergraduate study; or (c) a 3.5 cumulative graduate grade point average from a completed master's degree program.
2. **GMAT Requirement:** You must have completed the Graduate Management Test with a score of 450 or higher.
3. **Interview Requirement:** You must arrange an interview with an M.S.O.D. faculty member.

Admission will not be denied on the basis of the interview, but the interview must be completed before admission will be granted. The purpose is to provide a realistic preview of the M.S.O.D. program and to clarify the expectations of potential students of our program.

Conditional Admission

Conditional admission will be granted to those students whose grade point average and GMAT scores combine in a manner that exceeds our index formula criteria. This criteria is a score of 1,000 using an applicant's undergraduate grade point average, and 1,150 using an applicant's grade point average from a completed master's degree program. The index formula is 200 times the GPA plus the GMAT score. Applicants must score at least 410 on the GMAT to be eligible for conditional admission and must also satisfy items 3. and 4. as described under the regular admission criteria.

Conditionally admitted students must maintain a "B" (3.0) average in foundation courses and must maintain a "B+" (3.3) average in the first 12 hours of adviser approved core courses. Students who successfully meet the conditional requirements will be granted regular admission.

Candidates with completed files will be considered for admission four times a year: November, February, April and July. The candidates will be notified of the decision of the M.S.O.D. Advisory Committee.

Special Student Status

Students holding Special Student status are not eligible to enroll in undergraduate or graduate business courses.

Foundation/Prerequisite Courses

Foundation	Undergraduate Equivalent
MTH 118 (3)	Mathematical Analysis for Social Sciences I (3)
ORI 501 (3)	Introductory Probability and Statistics for Business (3)
ACC 501 (3)	Principles of Accounting (3)
FIN 502 (3)	Principles of Finance (3)
ECO 501 & 502 (6)	Principles of Economics (6)
ORI 502 (3)	Business Information Systems (3)
MGT 501 (3)	Principles of Management (3)
ORI 503 (4)	Production and Operations Management (3)
MKT 510 (3)	Marketing (3)

M.S.O.D. PROGRAM REQUIREMENTS

Core Level Requirements

The M.S.O.D. core consists of 30-33 hours: 30-33 hours of required courses and zero to three hours of restricted electives.

The required courses are:

- MGT 576 Corporate Social Policy (3)
- MGT 605 Organizational Theory and Behavior (3)
- MGT 609 Personnel Administration (3)
- MGT 628 Human Resource Development (3)
- MGT 638 Improving the Quality of Worklife (3)
- MGT 648 Communication and Organizational Development (3)
- MGT 658 Techniques of Organizational Development (3)
- MGT 678 Survey and Diagnostic Methods in Organizational Development (3)
- MGT 688 Practicum in Organizational Development Training (3), *or*
- MGT 690, 691, 692 Thesis Topic (3-6)

MGT 694 Organizational Development Strategy and Policy (3)

Students who have completed an undergraduate major in management may waive MGT 605, reducing the core requirement to 30 hours. Students who have successfully completed an undergraduate major in management may waive MGT 605 Organizational Theory and Behavior, reducing the core requirement to 30 hours. Students who have successfully completed an undergraduate course in corporate social policy (or responsibility) should substitute three hours of electives for MGT 576 Corporate Social Policy. Students who have successfully completed an undergraduate course in personnel administration or equivalent should substitute MGT 618 Staffing Organizations or three hours of electives for MGT 609 Personnel Administration.

Elective credits must have prior approval of the M.S.O.D. Advisory Committee.

ACCOUNTING AND FINANCE

Keith W. Lantz
Department Head
516 Pray-Harrold
487-3320

OPEN ONLY TO STUDENTS ON GRADUATE DEGREE ADMISSION

ACC 501 Accounting Principles. Three sem hours (Formerly ACC 491)

For students who have not had undergraduate accounting. Introductory course in accounting principles and techniques used to measure business transactions and to prepare financial statements. *Required of graduate students who have not completed a minimum of six hours of basic accounting.*

ACC 544 International Taxation and Accounting. Three sem hours

International accounting problems; the interaction of tax laws of the United States and selected foreign countries.

ACC 585 Business Tax Planning. Three sem hours

Covers the taxation of corporation income retirement plans, mergers and other corporate reorganizations, transfers and liquidation.

Prereq: A basic income tax course (ACC 344 Tax Accounting), or departmental permission.

OPEN ONLY TO STUDENTS ADMITTED TO GRADUATE PROGRAMS IN THE COLLEGE OF BUSINESS

ACC 605 Administrative Controls. Three sem hours (Formerly ACC 584).

Areas covered include cost analysis, cost allocation to profit and investment centers, profit planning, cash flow analysis, inventory control, control of decentralized operations. Both text and cases are used. *Not open to those*

students who have taken a cost accounting course.

Prereq: Completion of M.B.A. tool core.

ACC 610 Accounting System Design and Installation. Three sem hours

Provides the fundamentals of developing and analyzing accounting systems to produce efficient recording, optimum data processing procedures and appropriate analysis and interpretation for management. Case studies are used.

Prereq: ACC 605 Administrative Controls or ACC 620 Advanced Managerial Accounting.

ACC 615 Corporate Financial Reporting. Three sem hours

Study of authoritative pronouncements on accounting principles which guide reporting financial position, results of operations and changes in fund flows. May include case studies or analysis of published financial reports.

Prereq: Six hours of intermediate accounting.

ACC 620 Advanced Managerial Accounting. Three sem hours (Formerly ACC 587)

Covers concepts of management control through accounting, accounting for organizational objectives, profit and investment centers, budgeting, project planning and control.

Prereq: Satisfy requirement for ACC 605 Administrative Controls.

ACC 665 Theory of Accounting. Three sem hours

A study of the objectives, history and development of financial accounting theory; introduces advanced accounting problems in the areas of inventory accounting, intangibles, consolidations, partnership accounting, leases, pensions and prior period adjustments. ACC 665 is a capstone course which integrates the theoretical concepts and practical applications of the accounting discipline.

Prereq: ACC 615 Corporate Financial Reporting or six hours of intermediate accounting with departmental permission.

ACC 667 Professional Auditing. Three sem hours

A study of auditing concepts, objectives and procedures, and of the literature as it relates to current audit problems.

Prereq: ACC 615 Corporate Financial Reporting or six hours of intermediate accounting.

ACC 672 Estate Tax Planning. Three sem hours

Study of the federal taxation of estates, gifts and trusts, particularly as they affect family financial planning, and the preparation of federal estate tax, gift tax and fiduciary tax returns.

Prereq: A basic income tax course (ACC 344 Tax Accounting).

ACC 695 Seminar in Accounting. Three sem hours (Formerly ACC 696)

Study of selected problems in accounting. A contemporary issues seminar.

Prereq: ACC 615 Corporate Financial Reporting or departmental permission.

ACC 699 Independent Study. Three sem hours

Directed study of problems in accounting not otherwise treated in department courses.

Prereq: Completion of M.S.A. or M.B.A. tool core and departmental permission.

**OPEN ONLY TO STUDENTS
ON GRADUATE DEGREE
ADMISSION**

**FIN 502 Financial Principles. Three
sem hours (Formerly FIN 492)**

An introduction to financial management of the business firm. Covers techniques and theory of asset management, financing and dividend decisions. *Open only to graduate students who have not had six hours of basic finance.*
Prereq: ACC 501 Accounting Principles.

**FIN 540 International Finance. Three
sem hours (Formerly FIN 685)**

Study of international monetary system, the environment of foreign investment decisions, financial control in multinational companies.
Prereq: FIN 502 Financial Principles or departmental permission.

**INS 586 Risk and Risk Management.
Three sem hours**

Study of the nature of risk and the principles and methods used in risk management. Emphasis on use of insurance in handling business risks.
Prereq: FIN 502 Financial Principles.

**OPEN ONLY TO STUDENTS
ADMITTED TO GRADUATE
PROGRAMS IN THE
COLLEGE OF BUSINESS**

**FIN 615 Business Financial Markets.
Three sem hours (Formerly
Finance 553)**

Study of institutions from which long-term investment capital is obtained by a corporation through the several markets, and the allocation of funds among competing users.
Prereq: FIN 502 Financial Principles or departmental permission.

**FIN 620 Financial Administration
Policies. Three sem hours
(Formerly FIN 683)**

The internal policies and problems of financial management encountered in business. Developing administrative insights in funds administration planning, capital structure planning, security distribution arrangements and timing, expansion financing and solvency

maintenance. *Offered fall and winter semesters only.*
Prereq: Completion of M.B.A. tool core or departmental permission.

**FIN 625 Securities Analysis. Three
sem hours (Formerly Finance 573)**

An advanced course for the professional investment manager covering the areas of economic policy and forecasting, security valuation, technical analysis, portfolio methods and procedures applied to institutional portfolio management, trust financial management.
Prereq: FIN 502 Financial Principles.

**FIN 660 Advanced Financial
Management. Three sem hours
(Formerly FIN 693)**

Provides in-depth study of the central issues of corporate financial management, analysis of policies for high level

financial decision-making on capital budgeting and capital acquisition decisions.
Prereq: FIN 620 Financial Administration Policies.

**FIN 681 Special Topics in Finance.
Three sem hours (Formerly FIN
694)**

An in-depth study of a specialized area in accounting or finance.
Prereq: FIN 620 Financial Administration Policies.

**FIN 699 Independent Study.
Three sem hours**

Directed study of problems in finance not otherwise treated in department courses.

MANAGEMENT

Floyd Patrick
Department Head
504 Pray-Harrold
482-3240

OPEN ONLY TO STUDENTS ON GRADUATE DEGREE ADMISSION

MGT 501 Management: Concepts, Principles and Practice. Three sem hours (Formerly MGT 491)

The basic managerial functions are studied primarily from the perspective of the process design, but the behavioral, management science and other disciplinary schools of thought are also carefully examined. *Open only to graduate students who have not had a basic management course.*

MGT 567 Business Communication: Specialized Organizational Report Writing. Three sem hours

Course to train students (already admitted to a graduate degree program) to write reports suited to organizational needs and environments. Provides professional and managerial focus on designing reports for business, industry, education, health care and government. Develops skills in design, editing and analysis of reports.

MGT 568 Administrative Communication Theory. Three sem hours

A survey of the research and literature to familiarize the student with theory, concepts and methods relevant to administrative communication. *Prereq: Graduate student and one course in management.*

MGT 576 Corporate Social Policy. Three sem hours

The subject of business and its social, economic and political environments covers relationships of a business institution to the broader society outside its own formal organization. Technological changes, demographic and ecological changes, urbanization, developments in transportation and communication, the expanded role of government, sophistication and extension of research and development, and changes in education are sectors

relevant to the development and expansion of the American business system.

MGT 580 Management of Organizational Behavior. Three sem hours

A survey and synthesis of behavioral science theories relevant to management of business and non-business organizations. *This course is not open to students enrolled in a College of Business program.*

Prereq: MGT 501 Management: Concepts, Principles and Practice or equivalent.

MGT 592 Special Topics in Management. Three sem hours

Selected topic(s) from the field of management.

OPEN ONLY TO STUDENTS ADMITTED TO GRADUATE PROGRAMS IN THE COLLEGE OF BUSINESS

MGT 605 Organizational Theory and Behavior. Three sem hours (Formerly MGT 585)

The objective is to apply social science concepts to organizational structure and design. Case studies are used to relate theory and behavior.

Prereq: MGT 501 Management: Concepts, Principles and Practice or equivalent; completion of graduate prerequisites.

MGT 609 Personnel Administration. Three sem hours (Formerly MGT 693)

Current activities and theory relevant to personnel management function are described, including impact of changes related to government intervention and other environmental impacts.

Prereq: MGT 605 Organizational Theory and Behavior.

MGT 618 Staffing Organizations. Three sem hours

This course will train students to staff organizations. Students will obtain skills in human resource planning, recruitment, job analysis, selection techniques and evaluation (validation).

Prereq: MGT 609 Personnel Administration.

MGT 628 Human Resource Development. Three sem hours (Formerly MGT 586 Training and Organizational Development)

Course is designed to educate students in training needs analysis and program design, implementation of training programs, training evaluation procedures, human resource cost effectiveness plans, job design techniques.

Prereq: MGT 605 Organizational Theory and Behavior and MGT 609 Personnel Administration or equivalent.

MGT 638 Improving the Quality of Worklife. Three sem hours (Formerly MGT 587)

A historical overview and consideration of the newly developed field of organizational development in the private and public sectors as a means of increasing employee satisfaction and productivity in the work place.

Prereq: MGT 605 Organizational Theory and Behavior.

MGT 648 Communication and Organizational Development. Three sem hours (Formerly MGT 588)

The development of communication understanding and skills as required in organizational management and interaction by internal and external change

agents.
Prereq: A course in communication or departmental permission.

MGT 658 Techniques of Organizational Development. Three sem hours (Formerly MGT 589)

The study and development of specific skills in the techniques of organizational development as perfected in the field in recent years and as currently applied in modern service and profit oriented organizations with an emphasis on macro techniques.

Prereq: MGT 605 Organizational Theory and Behavior.

MGT 678 Survey and Diagnostic Methods in Organizational Development. Three sem hours (Formerly MGT 590)

The study and applications of varied methodologies in problem diagnosis, field survey, action research, team effectiveness analysis, organization renewal inventory and related instruments as applied in the organizational development process.

Prereq: MGT 605 Organizational Theory and Behavior and ORI 501 Introductory Probability and Statistics for Business.

MGT 681 Special Topics in Management. Three sem hours

Selected topic(s) from the field of management.

MGT 688 Practicum in Organizational Development Training. Three sem hours (Formerly MGT 593)

The opportunity to participate in an organizational development project in an active organization under the close guidance of a practicing consultant.

Students who have credit in MGT 690, 691, or 692 Master's Thesis in Organizational Development may not take this course.

Prereq: MGT 605 Organizational Theory and Behavior, MGT 628 Human Resource Development and MGT 648 Communication and Organizational Development.

MGT 690, 691, 692 Master's Thesis in Organizational Development. One, two and three sem hours

Students will develop and defend an original research proposal in the area of

organizational development, collect and analyze data, and prepare and defend a written report of their findings.

Students who have credit in MGT 688 Practicum in Organizational Development Training may not take this course.

Prereq: MGT 628 Human Resource Development, MGT 638 Improving the Quality of Worklife, MGT 658 Techniques of Organizational Development, MGT 678 Survey and Diagnostic Methods in Organizational Development and departmental permission.

MGT 694 Organizational Development Strategy and Policy. Three sem hours

The development of integrated organizational development policies and strategies and application to both live and written case studies.

Prereq: Completion of all the M.S.O.D. core.

MGT 695 Seminar in Management. Three sem hours

A study of selected management issues and problems. Specific topics vary from term to term.

Prereq: MGT 605 Organizational Theory and Behavior.

MGT 696 Management Strategy and Policy. Three sem hours

The development of overall strategy and supportive policies of the firm operating under competitive conditions, from the point of view of general management.

Improvement of decision-making skills through case analyses of actual situations. *Offered fall and winter semesters only.*

Prereq: Completion of M.B.A. operational and tool core.

MGT 699 Independent Study. Three sem hours

An intensive study of a problem or group of problems under the direction of a University faculty member.

Prereq: M.B.A. or M.S.O.D. core, MGT 605 Organizational Theory and Behavior and departmental approval.

MARKETING

Robert J. Williams
Department Head
512 Pray-Harrold
487-3323

OPEN ONLY TO STUDENTS ON GRADUATE DEGREE ADMISSION

MKT 510 Marketing. Three sem hours (Formerly MKT 501/491)

The development of skills in the analysis and resolution of management problems related to the marketing process; economic, psychological and sociological characteristics of demand for various products; marketing research; channels of distribution; advertising; personal selling; pricing policies and regulation of marketing. *Open only to graduate students who have not had a basic marketing course.*

MKT 520 International Business. Three sem hours (Formerly MKT 472)

Analysis of the global economic, political, cultural and geographic environments and their impact on market entry. Strategies of multi-national firms and survey of changes in marketing, finance, personnel and production policies resulting from international environmental differences. *Prereq: MKT 510 Marketing.*

MKT 592 Special Topics in Marketing. Three sem hours (Formerly MKT 693)

The courses involves daily visitations to various types of domestic and/or foreign business enterprises where discussions are held in seminars concerning marketing and other business affairs. Subsequent seminar sessions are held by the instructor at a classroom arranged prior to the trip.

OPEN ONLY TO STUDENTS ADMITTED TO GRADUATE PROGRAMS IN THE COLLEGE OF BUSINESS

MKT 610 Marketing Policies and Problems. Three sem hours (Formerly MKT 518)

Analysis of current marketing problems

and their implications relative to the firm's marketing mix and external economic, social, cultural, legal and political environments. *Offered fall and winter semesters only.*
Prereq: MKT 510 Marketing or equivalent.

MKT 630 Sales Operation Management. Three sem hours (Formerly MKT 565)

An intensive investigation of the sales function and its relationship to the total marketing program. Topics considered include setting sales objectives, formulation of sales strategy, development of sales organization, relationships with distributors and dealers, public policy as it relates to the sales function, analytical tools for forecasting sales, qualitative and quantitative measures of sales performance, control of sales operations and integration of sales and other marketing functions. Reviews of the literature in the sales field and cases stressed. *Prereq: MKT 610 Marketing Policies and Problems.*

MKT 640 Promotions Management. Three sem hours (Formerly MKT 575)

An integrative decision oriented course emphasizing the strategic function of an effective program of corporate promotions employing mass communications, personal selling, sales promotion, publicity and public relations. *Prereq: MKT 610 Marketing Policies and Problems.*

MKT 650 Channels of Distribution and Logistics. Three sem hours (Formerly MKT 577)

Identification and analysis of problems involved in the development and operation of channels of distribution. Issues of trade structure and methods of cooperation among channel members are discussed from legal and managerial points of view. Specific analytical tools are developed for the individual firms in analyzing spatial arrangements of markets, plant and warehouse location, inventory systems and selection of carrier alternatives. Lecture, discussion and cases. *Prereq: MKT 610 Marketing Policies and Problems.*

MKT 675 Market Planning and Forecasting. Three sem hours (Formerly MKT 680)

Development of student skills and techniques for strategic marketing planning and forecasting. Concepts relating to the mission, opportunity analysis, objectives, goals and programs will be explored. Individual planning and forecasting projects and exercises will be emphasized.

Prereq: MKT 610 Marketing Policies and Problems.

MKT 681 Special Topics in Marketing. Three sem hours (Formerly MKT 694)

Selected topic(s) from the field of marketing.

Prereq: MKT 610 Marketing Policies and Problems.

MKT 695 Seminar in Marketing. Three sem hours (Formerly MKT 696)

The purpose of this seminar is to develop both an understanding of and a point of view toward some of the major problems of marketing which are dealt with briefly or not at all in required course work. Topics vary from year to year in accordance with the needs and interests of the students.

Prereq: MKT 610 Marketing Policies and Problems.

MKT 699 Independent Study. Three sem hours

An intensive study of a problem under the direction of graduate faculty members.

Prereq: MKT 610 Marketing Policies and Problems.

OPEN ONLY TO STUDENTS ON GRADUATE DEGREE ADMISSION

These were formerly ADS courses.

LAW 503 Legal Environment of Business. Three sem hours (Formerly ADS 493)

The nature and operation of the American legal system; legal constraints on business activities. Law as an expression of social and political forces and as an instrument of economic and political change. *Not open to students having had LAW 293 Legal Environment of Business.*

LAW 530 Modern Commercial Law. Three sem hours

Designed for students desiring a detailed knowledge of modern business law. Provisions of the Uniform Commercial Code are emphasized. Aspects of the law of sales, negotiable instruments including effects of different endorsements, secured transactions, commercial financing and bankruptcy, bailments, bills of lading and letters of credit.

Prereq: Previous credit in law.

OPEN ONLY TO STUDENTS ADMITTED TO GRADUATE PROGRAMS IN THE COLLEGE OF BUSINESS

LAW 695 Seminar in Business Law. Three sem hours (Formerly ADS 696)

A study of selected business law issues and topics which may vary from term to term.

Prereq: LAW 503 Legal Environment of Business, completion of M.B.A. core.

LAW 699 Independent Study. Three sem hours

Students select a problem or group of problems to be researched or studied in depth under the direction of a designated faculty member.

Prereq: Departmental permission.

OPERATIONS RESEARCH AND INFORMATION SYSTEMS

V.M. Rao Tummala
Department Head
511 Pray-Harrold
487-2454

OPEN ONLY TO STUDENTS ON GRADUATE DEGREE ADMISSION

ORI 501 Introductory Probability and Statistics for Business. Three sem hours (Formerly ORI 494)

The development of fundamental probability concepts and statistical techniques emphasizing their applications to business decision-making. Includes the study of probability distributions, sampling, point and interval estimation and hypothesis testing.

Prereq: MTH 118 Mathematical Analysis for Social Sciences I and MTH 119 Mathematical Analysis for Social Sciences II.

ORI 502 Business Information Systems. Three sem hours (Formerly ORI 495)

This course is an introduction to concepts of information, business problem components and systems, computers and tools available for problem solving on computers. In addition, analysis of requirements for business information systems, design and implementation are studied. A high level programming language is used for implementation. Prior experience in a language is not required.

Prereq: MTH 118 Mathematical Analysis for Social Science I.

ORI 503 Production and Operations Management. Three sem hours (Formerly ORI 374)

Coverage of the design, operation and control functions in manufacturing and service organizations. Topics include product design, process design, facilities location and layout, capacity planning, job design, product scheduling, material management and process control.

Prereq: ORI 501 Introductory Probability and Statistics for Business.

OPEN ONLY TO STUDENTS ADMITTED TO GRADUATE PROGRAMS IN THE COLLEGE OF BUSINESS

ORI 601 Managerial Economics. Three sem hours (Formerly ORI 588)

Application of economic theory to problems facing business management. Emphasis on economics as a business tool that facilitates decision making. Topics considered include optimization techniques, uncertainty, demand, production, cost and anti-trust economics. *Not applicable to M.S.I.S. degree.*

Prereq: ORI 501 Introductory Probability and Statistics for Business or equivalent and ECO 501 Macroeconomic Theory and Policy, ECO 502 Microeconomic Theory and Practice or equivalent.

ORI 602 Techniques in Business Research. Three sem hours (Formerly ORI 592 Business Research)

This course is a review and extension of statistical techniques used by business people to collect and analyze data for making business decisions. Includes sampling techniques, correlation analysis, regression modeling, analysis of variance and non-parametric statistics. Computer packages and written reports. *Not applicable to MSIS degree.*

Prereq: ORI 501 Introductory Probability and Statistics for Business and ORI 502 Business Information Systems or equivalent.

ORI 603 Quantitative Methods I.
Three sem hours (Formerly ORI 586 Quantitative Analysis for Business)

Business decision making, complex problems of the modern business enterprise. Quantification and measurement, statistical decision making, linear programming, game theory, inventory control, replacement decisions and various techniques of statistical optimization. *Not applicable to M.S.I.S. degree.*

Prereq: ORI 501 Introductory Probability and Statistics for Business and ORI 502 Business Information Systems or equivalent.

ORI 604 Quantitative Methods II.
Three sem hours (Formerly ORI 687 Advanced Quantitative Methods)

Transportation networks, queuing theory, Bayesian inference, regression and correlation analysis, in addition to various discrete mathematical programming topics of contemporary interest.

Prereq: ORI 603 Quantitative Methods I or departmental permission.

ORI 610 Computers and Algorithms.
Three sem hours (Formerly ORI 610 Access Methods and Data Structures)

This class introduces students to formal methods of defining and describing computer systems and hardware. Practical applications of the formal techniques are emphasized.

Prereq: ORI 219 COBOL Programming, ORI 502 Business Information Systems.

ORI 614 Systems Analysis. Three sem hours (Formerly ORI 614 Project Management for Computer-Based Information Systems I)

Introduces systems analysis as a discipline and attempts to identify the role of the systems analyst in the analysis and synthesis of computer-based systems. Introduces various systems analysis techniques supplemented by discussion of various systems application areas. Outside speakers may give presentations.

Prereq: ORI 219 COBOL Programming, ORI 502 Business Information Systems.

ORI 620 Data Networks. Three sem hours (Formerly ORI 520)

Fundamental concepts and techniques needed in the design of data transmission networks. The emphasis will be on the techniques needed in analysis of the system and various trade-offs within it.

Prereq: MTH 119 Mathematical Analysis for Social Sciences II or MTH 120 Calculus I and ORI 502 Business Information Systems or equivalent.

ORI 624 Computer Operating Systems. Three sem hours (Formerly ORI 624 Operating Systems and Management of Computing Procedures)

Introduction to operating system resources. Batch processing systems, concurrency in software, introduction to multiprogramming systems and support of concurrent processed memory management, processor scheduling, device management and other resources. File systems; examples of operating systems.

Prereq: ORI 610 Computers and Algorithms.

ORI 625 Software Engineering Management. Three sem hours

This course involves the study of techniques for developing reliable software that can be delivered on schedule, within budget and in a maintainable condition. Societal implications of computer technology are also studied.

Prereq: ORI 610 Computers and Algorithms and ORI 614 Systems Analysis.

ORI 628 Advanced Data Structures. Three sem hours (Formerly ORI 628 Advanced Techniques of Information Storage and Retrieval)

The techniques, concepts and theory of the storage of data within computer systems will be studied.

Prereq: ORI 610 Computers and Algorithms.

ORI 630 Linear Programming and Extensions. Three sem hours (Formerly ORI 530)

An introduction to the theory, computational techniques and business applications of linear programming. Topics include solution techniques; duality theorem; sensitivity analyses; Gomory's integer programming

algorithm; transportation, transshipment and assignment models; and zero-sum game models.

Prereq: MTH 118 Mathematical Analysis for Social Sciences I or MTH 122 Elementary Linear Algebra or equivalent.

ORI 632 Non-linear Programming. Three sem hours

An introduction to the theory, computational algorithms and business applications of various types of nonlinear programming models. Topics include separable programming, classical theory of optimization, searching techniques, goal programming, branch and bound, and dynamic programming.

Prereq: ORI 630 Linear Programming and Extensions or equivalent.

ORI 634 Stochastic Models. Three sem hours

An introduction to stochastic models. Topics include Markov models, queuing models, stochastic programming and renewal theory. Applications of these models in various operating systems are emphasized.

Prereq: ORI 630 Linear Programming and Extensions or equivalent.

ORI 636 Forecasting Models. Three sem hours (Formerly ORI 536)

An introduction to forecasting models. Topics include linear and non-linear regression models, moving average method, exponential smoothing, Fourier series method, Leontief's input-output model and Markov model. Use of these models in making forecasts in business and industry is considered.

Prereq: ORI 465 Business Statistics II or equivalent.

ORI 638 Simulation and Modeling. Three sem hours (Formerly ORI 538)

Introduction to digital simulation techniques as they apply to business. The course presents the basic concepts involved in simulation, describes applications of simulation to business problems and discusses technical problems associated with the use of simulation. Emphasis is on the design and operation of computer models.

Prereq: ORI 501 Introductory Probability and Statistics for Business or ORI 502 Business Information Systems.

ORI 640 Operations Management.
Three sem hours (Formerly ORI 540)

This course will investigate the use of management science techniques to analyze and solve various problems related to the design, operation and control of operating systems. Operating systems are broadly defined here to include service organizations. Topics included are process planning, location and layout of production facilities, forecasting of demand, aggregate planning, inventory control, loading and sequencing jobs on facilities, statistical quality control and management information systems.

Prereq: ORI 603 Quantitative Methods I or departmental permission.

ORI 645 Database Management Systems. Three sem hours (Formerly ORI 610 Access Methods and Data Structures)

The techniques, concepts and theory relating to the use of generalized database management systems will be studied.

Prereq: ORI 628 Advanced Data Structures.

ORI 655 Decision Support Systems. Three sem hours

Framework for building decision support systems, process of building support systems, structural elements and interfaces, models evaluation and integration into decision support, system architecture, available automatic tools and future perspectives.

Prereq: ORI 610 Computers and Algorithms and ORI 614 Systems Analysis.

ORI 669 Business Conditions: Analysis and Forecasting. Three sem hours (Formerly ORI 689)

Macroeconomic activity as a major determinant of firm operations. Short-term economic forecasting: econometric models, opportunistic models, economic indicators. Forecasting business investment, housing, consumer purchases, other GNP components. Seasonal variation and methods of seasonal adjustment.

Prereq: ORI 601 Managerial Economics.

ORI 675 Language Processors. Three sem hours

Applications of techniques of language

processors to the problems involved in writing application programs, interactive computer systems and query languages, etc.

Prereq: ORI 625 Software Engineering Management.

ORI 681 Special Topics in Operations Research and Information Systems. Three sem hours (Formerly ORI 694)

This course will be offered periodically to review selected contemporary topics in quantitative analysis, business computer systems and/or managerial and business economics.

Prereq: Completion of M.B.A. or M.S.I.S. core.

ORI 690, 691, 692 Master's Thesis in Information Systems. One, two and three sem hours

Students will develop and defend an original research proposal in the area of information systems. Upon the conclusion, students will prepare and defend a written report of their findings in the form of a master's thesis.

Prereq: Completion of all required M.S.I.S. courses and departmental permission.

ORI 695 Research Seminar in Computer-Based Information Systems. Three sem hours (Formerly ORI 619)

This capstone course integrates management information systems (M.I.S.) with the fundamental areas of business. The impact of M.I.S. in the organization is analyzed in terms of current design and implementation techniques and followup evaluation of business systems. The student writes an original research paper in the area of management information systems.

Prereq: All M.S.I.S. required and restricted elective courses must be completed prior to this course.

ORI 696 System Development Projects. Three sem hours

To provide the student with experience in analyzing, designing, implementing and evaluating industry-related information systems problems. Students are assigned one or more system development projects. The project involves part of all of the system development cycle.

Prereq: Completion of all M.S.I.S. required and restricted elective courses.

ORI 699 Independent Study. Three sem hours

An intensive study of a problem or group of problems under the direction of a University faculty member.

Prereq: Completion of required core.

COLLEGE OF EDUCATION

DEAN: W. Scott Westerman
ASSOCIATE DEAN:
Mary A. Green

DEPARTMENTS

Health, Physical Education, Recreation
and Dance
Leadership and Counseling (Formerly
Educational Leadership and Guidance
and Counseling)
Special Education
Teacher Education (Formerly
Curriculum and Instruction,
Educational Psychology, and Social
Foundations)

HEALTH, PHYSICAL EDUCATION, RECREATION AND DANCE

Patric L. Cavanaugh
Department Head
237 Warner
487-4388

John E. Sheard
Coordinator of Advising
233 Warner
487-0090

The primary aim of the master's degree in physical education is to assist graduates in the proper utilization of all their classroom and practical experiences in such a way as to afford optimum effectiveness in teaching/coaching.

Objectives

Upon completion of the master's degree, students should be able to:

1. utilize philosophy in establishing the objectives, methods, curricular activities and techniques of evaluation which they should use in the physical education program;
2. develop a curriculum for either elementary school or secondary school physical education and utilize appropriate methods to achieve its goals;
3. utilize current procedures for evaluating student progress in achieving the objectives of the physical education program;
4. utilize sound administrative techniques in solving typical administrative problems in the area of physical education;
5. interpret current research as it applies to their own teaching;
6. acquire knowledge in greater depth in the areas of teaching selected by the individual student;
7. acquire skills, knowledge and experience in areas which extend beyond their undergraduate preparation that would enhance their abilities to teach more effectively;

Admission Requirements

1. Meet Graduate School degree requirements.
2. A baccalaureate degree from an accredited institution.
3. A major, minor or the equivalent in physical education or one of the associated areas.
4. A minimum of eight (8) semester hours in the basic sciences and one (1) course in evaluation.

Degree Requirements

1. Must have earned a minimum of 30 semester hours of graduate credit applicable to the program.
2. Must have completed a minimum of 20 semester hours of acceptable graduate credit in H.P.E.R.&D. Each candidate must take six required classes in the core program and complete the total hours through electives.
3. Must receive the recommendation of the coordinator of advising and department head.

Curriculum Requirements

Candidates will have the responsibility of scheduling conferences with their graduate H.P.E.R.&D. adviser to complete the following:

1. Core Courses (12 hours)
 - PED 585 Physical Education in Elementary Schools, *or*
 - PED 586 Physical Education in Secondary Schools
 - PED 587 Philosophy of Physical Education

- PED 588 Administrative Problems in Physical Education
- PED 589 Advanced Physical Testing
- PED 677 Research Techniques
- PED 698 Independent Study
- 2. Professional Courses (electives in H.P.E.R. &D.) (12-18 hours)
- 3. Cognate Courses (0-6 hours)

ATHLETIC COURSES (ATH)

These were formerly PED courses.

ATH 510 Administration of Athletics. Two sem hours

Problems related to interscholastic and intercollegiate athletic programs; for administrators, supervisors, coaches and others having a part in the control of athletics.

ATH 511 Advanced Techniques in Coaching Swimming: Stroke Technique. One sem hour

A course to provide the scientific and technical background to coach and teach competitive swimming strokes.

ATH 512 Advanced Techniques in Coaching Swimming: Training Methods. One sem hour

A course to provide the practical and scientific background for a swimming coach to design a competitive training program or a physical educator to make aquatics a meaningful fitness tool.

ATH 513 Coaching Women's Gymnastics. Two sem hours

A lecture-demonstration course in the problems and techniques of advanced coaching theories of women's gymnastics.

Prereq: One course in gymnastics or permission of instructor.

ATH 514 Judging Women's Gymnastics. Two sem hours

A lecture-demonstration course in the problems and techniques of judging women's gymnastics.

Prereq: One course in gymnastics or permission of instructor.

ATH 611 Advanced Techniques of Coaching Football. One sem hour

A lecture-demonstration course in the problems and techniques of advanced coaching theories of football.

ATH 612 Advanced Techniques of Coaching Track and Field. One sem hour

A lecture-demonstration course in the problems and techniques of advanced coaching theories of track and field.

ATH 613 Advanced Techniques of Coaching Basketball. One sem hour

A lecture-demonstration course in the problems and techniques of advanced coaching theories of basketball.

ATH 614 Advanced Techniques of Coaching Baseball. One sem hour

A lecture-demonstration course in the problems and techniques of advanced coaching theories of baseball.

ATH 615 Officiating and Coaching Volleyball. Two sem hours

A course designed for the individual who plans to coach and/or officiate volleyball. The class is structured to identify volleyball techniques, strategies and coaching problems as well as officiating procedures, rule interpretation and responsibility of coach to official and vice versa.

ATH 616 Advanced Techniques of Coaching Tennis. One sem hour

A course designed to identify and discuss tennis techniques, strategies and coaching problems.

ATH 619 Problems in Training for Athletes. Two sem hours

Problems in the physical preparation of athletes for competition; treatment and rehabilitation following injuries.

RECREATION COURSES (REC)

These were formerly PED courses.

REC 520 Trends in Community Recreation. Two sem hours

Recreation and the cultural aspects of communities.

REC 522 Social Recreation. Two sem hours

Planning and directing activities for family groups, church groups, senior citizens and school and community functions.

REC 523 Park and Recreation Planning and Design. Two sem hours

A course in planning and design of park and recreation facilities including golf courses, indoor and outdoor ice rinks, camping areas, recreation centers, community playfields and parks, indoor and outdoor swimming pools and lighted recreation facilities.

HEALTH EDUCATION COURSES (HED)

These were formerly PED courses.

HED 545 Sex Education. Two sem hours (Formerly Workshop in Sex Education).

Designed to provide a period of concentrated study and discussion about sex education for teachers, nurses, school administrators, clergy and interested representatives of community agencies.

HED 546 Alcohol Use and Abuse. Two sem hours (Formerly Seminar: Alcohol Use and Abuse).

Designed to improve the quality of teaching in alcohol education and the quality of rehabilitative efforts by public and private agencies concerned with alcohol problems. Attempts to develop an understanding of the physiological, psychological and sociological factors related to the use of alcohol. Specifically it is concerned with developing constructive attitudes toward the alcohol problem and dispelling prejudices, misunderstandings and myths which obscure facts.

HED 640 Basic Concepts of the School Health Program. Two sem hours

To provide school personnel with an opportunity to study and understand the function of the total school health program with special emphasis upon the classroom teacher.

HED 643 Problems in Community Health. Two sem hours

Community health problems and the forces operative in their solution; the role of the educator dealing with the health problems of his environment.
Prereq: HED 640 Basic Concepts of the School Health Program.

HED 645 Problems in Sex Education. Two sem hours

A course designed to help school personnel improve and implement comprehensive sex education programs in the schools, K-12. The focus is on improvement of skills and techniques in teaching and program development.

HED 647 School Health Trends. Two sem hours

Review of recent literature and research in the areas of health service and health instruction; national trends in school health.

Prereq: HED 640 Basic Concepts of the School Health Program.

HED 650 Administration of the School Health Program. Two sem hours

For principals, supervisors, coordinators, athletic directors and other personnel involved with the administration and leadership in school health programs. Current administrative theory in the implementation and improvement of school programs.

Prereq: HED 640 Basic Concepts of the School Health Program.

PHYSICAL EDUCATION COURSES (PED)

PED 505 Basic Statistics. Two sem hours

Statistical procedures, distribution, measures of central tendency, measures of dispersion and correlation.

PED 506 Test Construction. Two sem hours

Types of written tests and examinations; construction, selection and interpretation of results.

PED 561 Supervision of Physical Education. Two sem hours

Problems, relationships and procedures in the supervision of physical education programs.

PED 562 Facility Planning and Development. Two sem hours

Terminology, standards for planning, construction, use and maintenance of facilities in health, physical education, recreation and athletics.

PED 565 Problems in Intramural and Extramural Sports. Two sem hours

Organization and administration of intramural and extramural sports in junior and senior high schools; practical aspects of programming for groups and individuals.

PED 566 Sport in American Society. Two sem hours

A study of significance of sport in American society with emphasis on sport in the context of American culture, sport and social institutions in American society, socialization and sport, and some projections concerning the future of American sport.

PED 568 Physical Fitness. Two sem hours (Formerly Workshop in Physical fitness)

Current theories and practices in the development of physical fitness in our society; evaluation of school programs.

PED 570 Critical Analysis of Physical Education. Two sem hours

The expanding of physical education and the physical educator; an analysis of research in the foundation sciences and in philosophy.

PED 578 Motor Learning and Development. Two sem hours

A study of the development of motor skills in children as related to their age and growth patterns with an investigation of major theories and research in learning as applied to motor skills.

PED 579 Physical Education for Mentally Impaired. Two sem hours

Physical education curriculum and programming for the mentally impaired. Content includes program goals, assessment, prescription, teaching and program evaluation. Emphasis will be placed on adapting materials and utilizing alternative teaching strategies to individualize instruction.

PED 580 Comparative Physical Education. Two sem hours

The historical heritage of physical education from early Greek civilization to the present. Comparative studies of aims, objectives and programs of ancient and modern cultures.

PED 581 Physical Education for Impaired Students. Two sem hours

Physical education curriculum and programming for the impaired student. Content includes program goals, assessment, prescription teaching and program evaluation. Emphasis will be placed on adapting materials and utilizing alternative teaching styles to individualize instruction in both mainstreamed and segregated teaching situations.

PED 585 Physical Education in Elementary Schools. Two sem hours

Curriculum development, teaching methods, program planning and evaluation for the physical educator and the elementary school teacher; purposes and principles of organization and development of a physical education program for elementary schools.

PED 586 Physical Education in Secondary Schools. Two sem hours

Developing a physical education curriculum for secondary schools; problems involved in supervision.

PED 587 Philosophy of Physical Education. Two sem hours

The development of concepts of physical education and their impact on the society in which we live.
Prereq: Major/minor.

PED 588 Administrative Problems in Physical Education. Two sem hours

The case study approach to the understanding of problems in physical education and athletics; planning, organizing, developing, staffing, coordinating and budgeting programs.
Prereq: Major/minor.

PED 589 Advanced Physical Testing. Two sem hours

The application and interpretation of advanced physical tests in the areas of health, physical education, recreation and athletics.
Prereq: Major/minor.

PED 590, 591, 592 Special Topics. One, two and three sem hours

PED 606, 607, 608 Colloquium. One, two and three sem hours

PED 630 Basic Electrocardiography. Two sem hours

A two-hour lecture course on the basics of electrocardiography including EKG leads, EKG waves, time intervals, rate, normal rhythm, cardiac arrhythmias, basic axis determination, hypertrophy, ischemia, injury, infarction, blocks, exercise EKGs, pacemaker rhythm and drug effects on the EKG.

PED 637 Techniques for Graded Exercise Testing. Three sem hours

Students will demonstrate appropriate knowledge of functional anatomy, exercise physiology, patho-physiology and electrocardiography in order to administer graded exercise tests. Students will demonstrate their ability in helping to screen participants, administering tests, recording data, implementing emergency procedures and summarizing of data.

PED 640 Advanced Exercise Physiology. Two sem hours

A course designed to emphasize the cardio-respiratory and muscular adaptations that occur in the human during physical activity, especially as it relates to the preventive and rehabilitative aspects of exercise.
Prereq: PED 200 Anatomy and Physiology and PED 300 Physiology of Exercise.

PED 665 Sport Psychology. Two sem hours

This course will attempt to familiarize the student, whether coach, athlete or teacher, with scientific psychology as it relates to sport. The complex nature of optimal performance requires that an integrated psychological and physiological approach be employed. Therefore, theoretical and empirical evidence from the fields of applied psychology, applied physiology and sports medicine will be used to help the teacher-coach be more effective.

PED 668 Sport Training and Physical Fitness. Two sem hours (Formerly Seminar in Physical Fitness)

A study of current literature pertinent to the administration, exercise evaluation and implementation of adult and school fitness programs. Components of the physical training process and its importance to various sports are also examined.

PED 670 Current Problems in Physical Education. Two sem hours

Identification, discussion and analysis of current problems and issues which confront the physical educator.

RESEARCH COURSES

PED 677 Research Techniques. Two sem hours (Formerly PED 592)

Research in a variety of settings; reviewing published research, participating in research, presenting a plan for a research problem.

PED 697, 698, 699 Independent Studies. One, two and three sem hours (Formerly PED 597, 598, 599)

An intensive study of a problem under the direction of a University faculty member.
Prereq: PED 677 Research Techniques or equivalent.

WORKSHOP COURSES

ATH 595 Workshop in Athletics. Two sem hours (Formerly PED 515)

A specialized workshop in the area of athletics with the central theme to be announced.

REC 595 Workshop in Recreation. Two sem hours (Formerly PED 535)

A specialized workshop in the area of recreation with the central theme to be announced.

HED 595 Workshop in Health Education. Two sem hours (Formerly PED 555)

A specialized workshop in the area of health education with the central theme to be announced.

PED 595 Workshop in Physical Education. Two sem hours (Formerly PED 575)

A specialized workshop in the area of physical education with the central theme to be announced.

PED 595 Workshop in Gymnastics. Two sem hours (Formerly PED 576)

The development and improvement of gymnastics as a major area of physical education in the schools; the continuity and progression of gymnastic skills from grades one through 12 and current

trends in theory and practice. Lectures, demonstrations and discussions.

PED 595 Workshop in Movement Education. Two sem hours (Formerly PED 577)

A period of concentrated study dealing with the British and the American approach to movement education. Emphasis is given to creativity and movement through study, observation and actual participation. Designed to meet the needs of classroom teachers and physical education specialists at the elementary school level.

SEMINAR COURSES

PED 694 Seminar in Current Literature Analysis. Two sem hours (Formerly PED 663)

A critical analysis of recent literature and research in physical education and athletics. Emphasis is placed on the interpretation of practical data which are likely to have the greatest influence on programs, procedures and practices.

PED 694 Seminar in Motor Skills. Two sem hours (Formerly PED 678)

An investigation of factors having a significant effect upon the acquisition of motor skills. Attention is directed in turn to the learner, the educational setting and the teacher.

PED 694 Seminar in International Physical Education. Two sem hours (Formerly PED 680)

A continuation of PED 580 Comparative Physical Education, studying additional selected countries. A comparative analysis of physical education, recreation and sports of each country in depth, using the seminar approach.

LEADERSHIP AND COUNSELING

Jack D. Minzey
Department Head
13 Boone Hall
487-0255/487-3270

The Leadership and Counseling Department offers two program areas—educational leadership and guidance and counseling. Each of these areas offers both a Master of Arts degree and a Specialist in Arts degree. Both programs have the flexibility and content to provide training to a broad range of professionals seeking training for leadership, counseling and personnel services in diverse agencies and organizations.

The specific requirements and class offerings follow.

EDUCATIONAL LEADERSHIP PROGRAMS

Jack D. Minzey
Coordinator of Advising
13 Boone Hall
487-0255

Center for Community Education
William Kromer, Director
34 Boone Hall
487-2137

The educational leadership programs leading to the Master of Arts degree and the Specialist in Arts degree, as well as individual courses, are of interest and assistance to professional educators generally. For prospective or practicing administrators, the programs provide basic administrative course offerings as well as opportunities to specialize in administration at the elementary, middle and secondary schools, the central office and community college levels. In addition, persons preparing for leadership positions in the many other areas of education (e.g., adult education, business management, career education, community education, personnel, public relations, administration of vocational and technical education, etc.) will find an appropriate selection of courses. Many

courses offered are excellent electives for students pursuing advanced degrees in other departments.

Program formats have been designed in order to provide flexibility in course selection to accommodate each student's unique experience and future career goals. Course selections should reflect the student's career aspirations. The program is usually planned to prepare the student for a specific educational administrative position. More complete information may be obtained by contacting one of the advisers in the department.

MASTER OF ARTS

Admission Requirements

1. Must meet degree admission requirements of the Graduate School.
2. A valid undergraduate degree from an accredited four-year institution of higher education. (Undergraduates may apply after final semester's registration is completed.)
3. A 2.5 undergraduate grade point average, or a 2.75 undergraduate grade point average for the last 60 hours, or a favorable Miller Analogies Test score. (Applicants for a second master's degree must have had a 3.0 graduate grade point average on the first master's degree program.)
4. A valid teaching certificate. (See adviser for waiver provisions.)
5. Program planning interview with an adviser.

NOTE: International students should consult with an adviser regarding their admission.

Program Requirements

Following admission and prior to initial registration for classes, the student should select and consult with a program adviser, who will assist in the development of an official program of study. The requirements for graduation are:

Candidates for the master's degree in educational leadership must satisfactorily complete all work on the program of study, including the following:

A minimum of 30 semester hours of graduate credit applicable to the program. The requirements outlined below provide the basic guidelines within which student's programs are developed.

1. Core requirements (16 hours)
Six semester hours required:
EDL 510 Educational Organization
EDL 514 Introduction to Leadership
Two semester hours chosen from the following:
EDL 617 Administration of Educational Personnel
EDL 618 Elementary School Principalship
EDL 619 Middle School/Junior High School Administration
EDL 620 Senior High School Principalship
EDL 621 Community School Administration
EDL 622 Organization and Administration of the Community College
EDL 623 Adult Education Administration
EDL 624 School Business Management
EDL 625 Public School Superintendency
Eight semester hours in educational leadership courses selected with approval of the adviser and reflecting the student's professional needs and objectives.
2. Supportive area (14 hours):
EDP 677 Research Techniques
Other supportive courses may be selected from educational leadership, other College of Education courses or courses outside the College of Education. These courses should sup-

port the student's professional objectives and be approved by an adviser.

3. Residency Requirement:
Six semester hours must be taken on campus or at the Flint Center.

SPECIALIST IN ARTS

Admission Requirements

Admission requirements for specialist's candidate holding a master's degree are:

1. Must meet specialist's degree admission requirements of the Graduate School.
2. A valid master's degree from an accredited graduate school.
3. A 3.3 ("B +") graduate grade point average in the completed master's degree *or* a favorable score on the Miller Analogies Test score.
4. A valid teaching certificate. (See adviser for waiver provisions.)
5. A year or more of successful teaching or administrative experience, or equivalent acceptable to the adviser.
6. Three favorable recommendations from supervisors.
7. An overall G.P.A. of 3.3 ("B +") is required for graduation.

Program Requirements

The specialist's degree program requires a minimum of 32 semester hours beyond the master's degree. Students who have earned their master's degree from other departments at Eastern Michigan University or at other institutions will be required to remove master's degree level deficiencies. Students work closely with their adviser in developing programs which will prepare them for their career goals.

Candidates for the specialist's degree in educational leadership must satisfactorily complete all work on the program of study, including the following:

A minimum of 62 semester hours of graduate credit applicable to the program (32 semester hours beyond the 30 semester hour master's degree program). The requirements outlined below provide the basic guidelines within which the students' programs are developed.

1. Completion of a master's degree in educational leadership or equivalent course work.

2. Core courses (eight hours):
EDL 710 Leadership Theory
EDL 712 Analysis of Research in Administration
EDL 713 Field Based Research
3. Concentration area (14 hours):
These courses in educational leadership are selected with approval of the adviser and reflect the student's professional needs and objectives.
4. Applied Research (four to six hours):
EDL 789 Internship or Thesis (EDL 790, 791 and 792) or statistical block (EDP 621 Statistical Applications in Educational Research or EDP 651 Statistics II: Inferential Statistics and EDP 674 Research Methods and Interpretation).
5. Cognates (six hours):
These courses are elected from other university departments and should complement the program goal.
6. Residency Requirement:
Sixteen hours of on campus credit or 12 hours on campus and four hours at the Flint Center.
7. An overall G.P.A. of 3.3 ("B +") is required for graduation.

Additional Program Information

Course Substitutions/Program Changes: Changes in the student's official program and substitution of courses must be approved by the adviser prior to registration. With the approval of the student's adviser, one course may be substituted from another area for a course in the educational leadership core if the course is administrative in nature. Such a course cannot carry more than three hours of credit.

Courses Outside the Program: A suggested list of courses has been prepared by the department. Other courses may be used in this area if they are approved by the student's adviser.

Internships: A program of on-the-job administrative training is available under the direction of experienced administrators. Further information is available from the director of internships programs, *Donna Schmitt*. Internship placements should be arranged at least one year in advance. Coordinator of advising is *Jack Minzey*; advisers are *Francis Daly*, *Kenneth Grinstead*, *William Kromer*, *Jack Minzey*, *Donna Schmitt*.

EDUCATIONAL LEADERSHIP COURSES

EDL 510 Educational Organization. Two sem hours (Formerly EDL 502)

Organization of American public schools; authority, functions and relationships of federal, state and local governments to education; methods of organization within school districts; non-graded organizational patterns. *Open to non-majors and majors.*

EDL 511 Community Organization. Two sem hours (Formerly EDL 540)

An understanding of the community as a social group. Emphasis on community analysis, leadership, criteria of a good community, principles of change and action. *Open to non-majors and majors.*

EDL 512 Community Education. Two sem hours (Formerly EDL 556)

The basic principles and philosophy of community education; its current status and relationship to education. *Open to non-majors and majors.*

EDL 513 Education and Community Relations. Two sem hours (Formerly EDL 560 School and Community Understanding)

Interpreting the educational institution to the community with emphasis on improving relationships between the two. Means of communicating with many publics and means of getting community feedback. *Open to non-majors and majors.*

EDL 514 Introduction to Leadership.
Two sem hours (Formerly EDL 562 Educational Leadership)

The process and function of various leadership positions are explored including current practices, theories and concepts of administration. *Open to non-majors and majors.*

EDL 515 Supervision of Instruction.
Two sem hours (Formerly EDL 566)

Development of those attitudes and skills necessary for administrators as they plan and maintain effective, positive instructional programs; analysis and design of appropriate educational opportunities for all students. *Open to non-majors and majors.*

EDL 516 School Law for Teachers.
Two sem hours (Formerly EDL 580)

Legal principles underlying day-to-day teaching activities; how laws operate and legal principles develop. *Open to non-majors only.*

EDL 517 Evaluation of Organizational Services. **Two sem hours (Formerly EDL 587 Evaluating Educational Services)**

Problems, principles and procedures involving the evaluation of facilities, personnel, programs and services. Evaluation instruments will be developed, applied and analyzed. *Open to non-majors and majors.*

EDL 610 Accounting for School Administrators. **Two sem hours (Formerly EDL 515)**

Principles, theory and procedures of public school fund accounting; accounting principles as applied to various kinds of public school funds; financial statements and reports; internal accounting control; payroll accounting; business papers and procedures. *Open to non-majors and majors.*

EDL 611 Introduction to Adult Education. **Two sem hours (Formerly EDL 550 Adult Education)**

A general overview of the topic of adult education to students for introductory purposes and a basis for further concentration and study in selected advanced areas of adult education. This course should be a prerequisite for advanced study and would include philosophy,

history, identification of adult objectives, knowledge of adult learners, contemporary status, trends and issues in adult education. *Open to non-majors and majors.*

EDL 612 Economics of Public Education. **Two sem hours (Formerly EDL 553)**

Examines the basic economic, fiscal and legal theories of support for education tax structures, state aid formulas, federal aid and school budgets. *Open to non-majors and majors.*

EDL 613 Philosophy and Purposes of the Community College. **Two sem hours (Formerly EDL 563)**

An overview of the development of the two-year college, its origins, major characteristics and prospects with special emphasis on philosophy and purposes. Fundamental issues identified and conflicting positions investigated. *Open to non-majors and majors.*

EDL 614 Law of Higher Education. **Two sem hours (Formerly EDL 581)**

Examines the major legal aspects of the administration of institutions of higher learning. *Not open to students with credit in EDL 630 Legal Aspects of Administration.*

EDL 615 Collective Negotiations in Education. **Two sem hours (Formerly EDL 651)**

An analysis of negotiations; issues which may be encountered by school administrators and teachers in collective negotiations in education. *Open to non-majors and majors.*

EDL 616 Educational Facilities Planning. **Two sem hours (Formerly EDL 655 School Plant Planning)**

Problems and procedures revealed through a plant-planning chronology which include hiring the architect, the attorney's role, site acquisition, involving citizens, utilizing staff, the bond issue, designing and constructing the building. Emphasis will be placed on renovating, closing and alternative uses for existing buildings *Open to non-majors and majors.*

EDL 617 Administration of Educational Personnel. **Two sem hours (Formerly EDL 658 School Personnel Administration)**

For prospective and practicing administrators. Assists in the development of an understanding of the issues, problems and practices involved in administration of personnel programs in education. Explores in depth the basic principles of staff administration and high-level morale. *Prereq: Six hours credit in educational leadership.*

EDL 618 Elementary School Principalship. **Two sem hours (Formerly EDL 671)**

The examination of the elementary school principal's role in improving curriculum and instruction; in the establishment of effective, routine operations in an elementary school; in establishing avenues for change by an awareness of innovations, materials, technologies and research that are relevant to elementary school education. *Prereq: Six hours credit in educational leadership.*

EDL 619 Middle School/Junior High School Administration. **Two sem hours (Formerly EDL 672)**

An examination of the characteristics of the middle school/junior high school and the organization necessary to provide those experiences and instruction necessary to assist early adolescents in making the transition from childhood dependence to adult independence, including approaches to instruction, scheduling procedures, exploratory and enrichment studies, evaluation methods, staff development, student services and community relations. *Prereq: Six hours credit in educational leadership.*

EDL 620 Senior High School Principalship. **Two sem hours (Formerly EDL 673)**

Educational leadership in the secondary school, including approaches to school-community relations, curriculum, instruction, special services, buildings and equipment, pupil relations, personnel relations, scheduling, staff development and innovative practices. *Prereq: Six hours credit in educational leadership.*

EDL 621 Community School Administration. Two sem hours (Formerly EDL 674)

Principles and techniques of administering community education.

Prereq: EDL 512 Community Education.

EDL 622 Organization and Administration of the Community College. Two sem hours (Formerly EDL 675)

An understanding of the two-year college; its legal bases, external and internal constraints, functional patterns, administrative staff roles and responsibilities, faculty organization and authority, student participation in organizational structure. *Open to non-majors and majors.*

EDL 623 Adult Education Administration. Two sem hours (Formerly EDL 676)

An in-depth study of the leadership necessary to administer and manage adult education programs in the public and private sector. A practical knowledge of adult education administration also will be obtained.

Prereq: EDL 611 Introduction to Adult Education or permission of the instructor.

EDL 624 School Business Management. Two sem hours (Formerly EDL 677)

School business procedures, budgeting, construction, purchasing, salary schedules, school indebtedness and insurance problems.

Prereq: EDL 612 Economics of Public Education.

EDL 625 Public School Superintendency. Two sem hours

Studies in depth practical knowledge and skills required to carry out effectively the responsibilities of chief executive officer of a modern school system.

Prereq: Six hours in educational leadership.

EDL 630 Legal Aspects of Administration. Two sem hours (Formerly EDL 680)

Operation of laws; development of legal principles; federal and state relationships to education; authority relationships to education; authority and liability of school boards, administrators and

teachers; negligence; discipline and control. *Open to non-majors and majors.*

EDL 631 Human Relations Skills for Educational Leaders. Two sem hours

An overview of the need for and functions of various human relations in the leadership of educational institutions. Also included is development of an understanding and practice of specific interactive strategies necessary for such leadership. *Open to majors and non-majors.*

EDL 640 Organizational Theory. Two sem hours

Includes various theories, approaches and methods of organizing educational institutions. Concerned with design, purposes, processes, problems and issues of organizational structuring and change. Includes examination of organizational environment and informal organization. *Open to majors and non-majors.*

EDL 650 Advanced School Finance. Two sem hours (Formerly EDL 711/653)

Designed to acquaint students with specific areas of school finance. Areas for study are the capital outlay program, the school bond market, the bond prospectus, model state foundation programs and the development of sound debt management policies.

Prereq: EDL 612 Economics in Public Education.

EDL 679, 680, 681 Special Topics. One, two and three sem hours (Formerly EDL 539)

These course numbers are used for special offerings of the department whenever a course is being used on an experimental basis.

Prereq: Will be determined on the basis of the topic being offered.

EDL 682, 683, 684, 685 Workshops in Educational Leadership. One, two, three and four sem hours (Formerly EDL 595)

Concerned with special topics of educational leadership. Designed to maximize student participation. Workshop method of teaching and learning emphasized. *Topics to be selected (see current schedule).*

Prereq: Will be determined on the basis of the workshops being offered.

EDL 686, 687, 688, 689 Master's Internship in Educational Leadership. One, two, three and four sem hours (Formerly EDL 594)

Training in administration through actual supervised experience.

Arrangements must be approved by adviser and director of intern program prior to registration. *Enrollments limited.*

Prereq: Departmental permission. Majors only.

EDL 694, 695, 696 Seminars in Administration and Supervision. One, two and three sem hours (Formerly EDL 596)

Concerned with broad or special topics of educational leadership. (Students are limited to four hours of seminar credit on master's degree program.) Topics to be selected (see current schedule).

Prereq: Will be determined on the basis of the seminar being offered.

EDL 697, 698, 699 Independent Studies. One, two and three sem hours (Formerly EDL 597, 598, 599)

An intensive study of a problem under the direction of a University faculty member.

Prereq: Permission of the adviser and 10 hours in educational leadership.

COURSES FOR SPECIALIST'S DEGREE STUDENTS ONLY

EDL 710 Leadership Theory. Two sem hours (Formerly EDL 605)

Theories and models of administration and leadership; general theories and research in leader behavior.

Prereq: Open to non-majors and majors.

EDL 712 Analysis of Research in Administration. Two sem hours (Formerly EDL 683 Behavioral Science in Administration and Supervision)

Emphasizes contributions of research in the behavioral sciences to educational leadership. Critical readings of the research of psychologists, sociologists, political scientists and others that has special meaning in understanding such concepts as leadership, organization, power, authority, communication, innovation and decision making.

Prereq: Six hours in educational leadership and EDP 677 Research Techniques.

TENTATIVE SCHEDULE

Course	Winter	Spring	Summer	Fall
EDL 510	X	X	X	X
EDL 511		X		X
EDL 512	X		X	X
EDL 513	X	X		X
EDL 514	X	X	X	X
EDL 515	X	X		X
EDL 516	X			X
EDL 517	X		X	X
EDL 610				
EDL 611	X		X	
EDL 612	X		X	X
EDL 613				X
EDL 614				
EDL 615	X			X
EDL 616				X
EDL 617			X	
EDL 618		X		X
EDL 619				X
EDL 620	X		X	
EDL 621	X			
EDL 622	X			
EDL 623				X
EDL 624				X
EDL 625	X			
EDL 630	X		X	X
EDL 630	X		X	X
EDL 631	X			
EDL 640				X
EDL 650	†			
EDL 687	X		X	X
EDL 695	X	X	X	X
EDL 697	X	X	X	X
EDL 698	X	X	X	X
EDL 699	X	X	X	X
EDL 710		X		X
EDL 712			X	X
EDL 713		X	X	X
EDL 789	X		X	X
EDL 795	X		X	X
EDL 797	X	X	X	X
EDL 798	X	X	X	X
EDL 799	X	X	X	X

(X even years; † odd years)
 The above schedule is subject to modification because of personnel and enrollment changes. Consult the official class schedule for each term. Courses are offered each term through Continuing Education as a supplement to the above schedule.

EDL 713 Field Based Research. Four sem hours (Formerly EDP 693 Practicum)

Development and completion of a field-based study.

Prereq: EDL 712 Analysis of Research in Administration, EDP 677 Research Techniques and departmental permission.

EDL 779, 780, 781 Special Topics Seminar. One, two and three sem hours (Formerly EDL 686)

An intensive study of a topic of current relevancy.

Prereq: Will be determined on the basis of the topic being offered.

EDL 786, 787, 788, 789 Internship in Educational Administration. One, two, three and four sem hours (Formerly EDL 694)

Provides an opportunity for the graduate student, teacher or administrator to develop administrative skills by working under the direction of an experienced administrator. Arrangements must be approved by adviser and director of the intern program prior to registration.

Prereq: Departmental permission.

EDL 790, 791 and 792 Thesis. One, two and three sem hours (Formerly EDL 690, 691, 692)

An intensive study of a problem or group of problems under the direction of a University faculty member.

Prereq: Approval of adviser and departmental requirements for thesis.

EDL 794, 795, 796 Advanced Seminar in Administration and Supervision. Two, three and four sem hours (Formerly EDL 696)

An intensive study of selected problems in administration and supervision.

Students are limited to four hours of seminar credit on specialist's degree program.

Prereq: Six hours toward Specialist in Arts degree.

EDL 797, 798, 799 Independent Studies. One, two and three sem hours (Formerly EDL 697, 698, 699)

An intensive study of a problem under the direction of a University faculty member.

Prereq: Approval of adviser, 10 hours in educational leadership and departmental permission.

GUIDANCE, COUNSELING AND PERSONNEL WORK PROGRAMS

B.W. Van Riper
Coordinator of Advising
13 Boone Hall
487-3270

Graduate study in guidance and counseling consists of the Master of Arts degree program, the Specialist in Arts degree program, and service course offerings for classroom teachers and graduate students in related fields.

The master's degree program provides entry level competencies and proficiencies for such positions as elementary school counselors, secondary school counselors and college student personnel workers. In addition, counselors and personnel workers in non-education settings, e.g., employment counselors, vocational rehabilitation counselors, public offender counselors, community/agency personnel and business/industry personnel, receive education and training which improves their effectiveness.

The specialist's degree program of studies provides individuals with advanced competencies, enabling them to assume professional counseling and leadership positions. The advanced program of graduate studies is directed to those persons aspiring for greater effectiveness in their current employment and advancement in various community and educational settings which require professional counseling skills and knowledge.

MASTER OF ARTS

Admission Requirements

1. Meet Graduate School degree admission requirements.
2. A valid teaching certificate (elementary and/or secondary) for those students pursuing the school counselor endorsement program.
3. A 2.50 undergraduate grade point average overall or a 2.75 grade point average in the last half of undergraduate degree program.

OR

- Students who have an undergraduate grade point average between 2.0 and 2.49 may take the Miller Analogies Test (MAT); those who achieve a score of 37 or above on the MAT will be eligible for admission.
4. Completion of Personal Data Form.

5. A personal interview with an assigned adviser.

A program adviser will be assigned to each student when records are received from the Graduate School. At this time, the student will be notified and should arrange for a personal interview. The adviser will assist the student in developing a planned program of graduate study. All courses and subsequent changes in the program must be approved by the adviser. Persons desiring further clarification of admission requirements or information related to alternative admission should contact *Dr. B. W. Van Riper*, coordinator of advising, 13 Boone Hall.

Program Requirements

A master's degree program consists of two major components, a major concentration in guidance and counseling and appropriate courses in cognate areas. Students pursuing graduate study in school counseling and endorsement as elementary or secondary school counselors in Michigan follow the program outline, "School Counselor Endorsement Program." Students pursuing graduate study in college student personnel work follow the program outline, "College Student Personnel Program." Students pursuing graduate study in areas of community/agency counseling or personnel work follow the program outline, "Community/Agency Personnel Program."

SCHOOL COUNSELOR ENDORSEMENT PROGRAM

The following outline describes the general program requirements leading to a minimum of 32 semester hours of graduate study for those students seeking training and endorsement as elementary or secondary school counselors:

1. Major Concentration in Guidance and Counseling (20-26 hours)
 - a. Required Courses:
 - G&C 500 Helping Relationships: Basic Concepts and Services
 - G&C 505 Counselor Development: Basic Skills
 - G&C 510 Counselor Development: Counseling Process
 - G&C 520 Standardized Group Testing
 - G&C 530 Career Development and

Information Services
G&C 540 Group Process I
G&C 610 Theories of Counseling
G&C 611 The Elementary School Counselor, *or*
G&C 613 The Secondary School Counselor
G&C 620 Individual Appraisal in Guidance and Counseling
(Required on secondary school program)

G&C 686 Counseling Practicum

b. Elective Courses:

These guidance and counseling courses are selected with approval of the adviser and reflect the student's professional needs and objectives.

2. Cognate Areas (6-12 hours)

a. Required Course:

EDP 621 Statistical Applications in Educational Research or equivalent

b. Elective Courses:

These cognate courses provide a knowledge and understanding of human development and behavior, the work setting, or meet career-related objectives and are selected with the approval of the adviser.

Students seeking counselor endorsement of their teaching certificates must provide evidence of their valid Michigan teaching certificates at the time of admission. These students are eligible to apply for counselor endorsement of their teaching certificates at the completion of their graduate programs of study.

COLLEGE STUDENT PERSONNEL PROGRAM

The following outline describes the general program requirements leading to a minimum of 32 semester hours of graduate study for those students seeking training and education as college student personnel professionals in higher education settings:

1. Major Concentration in Guidance and Counseling (20-26 hours)

a. Required Courses:

G&C 500 Helping Relationships: Basic Concepts and Services
G&C 505 Counselor Development: Basic Skills
G&C 510 Counselor Development: Counseling Process

G&C 520 Standardized Group Testing
G&C 530 Career Development and Information Services

G&C 540 Group Process I
C&C 550 Student Personnel Services in Higher Education

G&C 610 Theories of Counseling
G&C 686 Counseling Practicum I

or
G&C 689 Field Work Experience

- b. Elective Courses: (2-8 hours)
These guidance, counseling and personnel courses reflect the student's professional needs and objectives and are selected with the approval of the adviser.
2. Cognate Courses (6-12 hours)
- a. Required course:
EDP 621 Statistical Applications in Educational Research or equivalent
- b. Recommended course:
EDL 640 Organizational Theory
- c. Elective courses:
These cognate courses provide a knowledge and understanding of human development and behavior, the work setting, or meet career-related objectives and are selected with approval of the adviser.

COMMUNITY/AGENCY PERSONNEL PROGRAM

The following outline describes the general program requirements leading to a minimum of 32 semester hours of graduate study for those students seeking training and education as counselors or personnel workers in community/agency settings:

1. Major Concentration in Guidance and Counseling (20-26 hours)
- a. Required Courses:
- G&C 500 Helping Relationships: Basic Concepts and Services
 - G&C 505 Counselor Development: Basic Skills
 - G&C 510 Counselor Development: Counseling Process
 - G&C 520 Standardized Group Testing
 - G&C 530 Career Development and Information Services
 - G&C 540 Group Process I
 - G&C 610 Theories of Counseling
 - G&C 686 Counseling Practicum I

or

G&C 689 Field Work Experience
G&C 694 Seminar: Counseling in the Community

- b. Elective Courses:
These guidance, counseling and personnel courses reflect the student's professional needs and objectives and are selected with the approval of the adviser.
2. Cognate Courses (6-12 hours)
- a. Required course:
EDP 621 Statistical Applications in Educational Research or equivalent
- b. Elective Courses:
These cognate courses provide a knowledge and understanding of human development and behavior, the work setting, or meet career-related objectives and are selected with approval of the adviser.

SPECIALIST IN ARTS

Admission Requirements

1. A 3.3 graduate GPA.
2. Hold a master's degree in guidance and counseling or its equivalent from an accredited institution.
3. Supporting statements from two regular full-time faculty members and at least one immediate/recent supervisor.

Admission Procedures

1. Meet specialist's degree requirements of the Graduate School and of the Guidance, Counseling and Personnel Work Program.
2. Provide written expression of (a) personal and professional reasons for pursuing the degree program, (b) related experiences, and (c) professional counseling goals.
3. Interview on request.
4. Completed applications for the academic year must be received by July 1 for consideration for fall semester admission.

The graduate admissions committee in the Guidance, Counseling and Personnel Work Program makes final admission decisions consistent with the needs of the profession and the ability of the program to effectively train its students at this advanced level of graduate study. Prior to application to this program, students should contact Dr. B. W. Van Riper, coordinator of advising, 13 Boone Hall.

Program Requirements

The advanced studies in counseling program, which culminates with the Specialist in Arts degree, prepares counselors for professional counseling, personnel and leadership positions in community and educational settings. The focus of the program is on advanced level competencies for counseling and upon the expanding knowledge in the fields of counseling, psychology, and life development. While the goal is counselor development and greater effectiveness, increased counselor competitiveness in the human services job market is also of primary importance.

The advanced studies program builds on four developmental themes reflected in the Master of Arts program. These themes are individual counseling competencies, group process/counseling competencies, assessment methods and processes, and life/vocational development.

The Specialist in Arts degree requires a minimum of 32 semester hours beyond the master's degree. The main components consist of 18 semester hours of study in the guidance and counseling area with 14 semester hours of elective course work. The program begins with one year of study in which all participants take a total of 10 semester hours of course work together in the fall, winter and spring semesters. Participants are expected to make a commitment of one night a week for the first three semesters. During the second year, participants enroll in two three credit hour internships in a placement setting which complements their professional goals.

The 14 semester hours of elective course work enable participants to individualize their professional goals in the program. These courses may be elected to strengthen the counselor's background and understanding in the social and behavioral sciences as these relate to counseling. Participants have the opportunity to develop minor specialty areas of concentration in related disciplines by taking electives in such areas as guidance and counseling, psychology, educational leadership, educational psychology, home economics, communication and theatre arts, and special education.
An overall G.P.A. of 3.3 ("B+ ") is required for graduation.

GUIDANCE AND COUNSELING COURSES

G&C 500 Helping Relationships: Basic Concepts and Services. Two sem hours (Formerly Introduction to Guidance and Counseling)

An introduction to concepts and principles used in helping relationships and an overview of services offered by helping professions. The course provides experiences in interpersonal relations and opportunities for self-development. *Open to majors and non-majors.*

G&C 501 Guidance in the Elementary School. Two sem hours

The unique contributions of guidance to the work of the classroom teacher and other staff in the elementary school are surveyed. Relationships between guidance, instruction and administration in the elementary school are explored. *Open to majors and non-majors.*

G&C 504 Human Relations, Concepts and Skills for Adult Education Teachers. Two sem hours

This course provides an introduction to human relations training. Major emphasis is given to helping concepts, relating skills, self-assessment procedures, and step-by-step process for more effective interpersonal relationships in learning environments. Experiential activities are provided to assist teachers/facilitators of adult learning programs. *Open to majors and non-majors.*

G&C 505 Counselor Development: Basic Skills. Two sem hours

Designed to train prospective counselors for competencies in beginning counseling skills. Individuals assess their potential for counseling. Expectations are clarified for program, professional and certification requirements; career opportunities are explored. *Open to majors and non-majors.*

G&C 510 Counselor Development: Counseling Process. Two sem hours

The course is designed to assist counselor trainees in understanding the counseling process. Opportunities are provided for continued training and integration of counseling skills. Various counseling theories are examined. Consulting skills and processes are

introduced.

Prereq: G&C 500 Helping Relationships: Basic Concepts and Services; G&C 505 Counselor Development: Basic Skills.

G&C 515 Crisis Intervention. Two sem hours

The course focuses on crisis intervention from a theoretical and practical perspective. Emphasis will be on defining the nature of crisis; on specific crisis reactions including suicide, rape, loss, illness, etc.; and finally on how to intervene with clients in crisis.

Prereq: G&C 505 Counselor Development: Basic Skills or equivalent.

G&C 520 Standardized Group Testing. Two sem hours

This course is designed to familiarize students with various standardized group tests used in guidance and personnel programs. Emphasis is given to the development of school-wide testing programs and to the interpretation and use of test results.

Prereq: G&C 500 Helping Relationships: Basic Concepts and Services; EDP 621 Statistical Applications in Educational Research.

G&C 530 Career Development and Information Services. Two sem hours (Formerly Educational and Occupational Information)

An introduction to the psychology, sociology and economics of work. Career development and decision-making theories are presented and are applied to career counseling programs. Informational services including sources, organization and evaluation of educational and occupational information are examined.

Prereq: Six semester hours in guidance and counseling courses or permission of instructor.

G&C 531 Career Education in the Guidance Program. Two sem hours (Formerly G&C 530)

Students will learn to implement the guidance component of career education. Background, content and implications of the concept are presented. Class participants will develop action programs based upon the Michigan Guidance Infusion Model.

Prereq: G&C 500 Helping Relationships: Basic Concepts and Services or equivalent; or permission of instructor.

G&C 534 Career Education for Adult Education Teachers. Two sem hours

This course is designed to prepare teachers of adults to meet the career guidance needs of their students. Specifically, the content will enable teachers to assist adult learners in assessing vocational behavior, improving self-concept, improving work adjustment and coping with the realities of the labor market. *Open to majors and non-majors.*

G&C 540 Group Process I. Two sem hours

The course is designed to develop competencies in basic group facilitation skills and to identify verbal and non-verbal behaviors and group interactive processes. Opportunities are provided for participation in a small group. Information is presented on the development and rationale of groups.

Prereq: G&C 500 Helping Relationships: Basic Concepts and Services; G&C 505 Counselor Development: Basic Skills.

G&C 550 Student Personnel Services in Higher Education. Two sem hours (Formerly G&C 601)

Overview of student personnel services in higher education, their evolution and growth, educational significance, administrative aspects and survey of the

various student services. Major emphasis will be given to role of personnel work in the educative process of students in colleges and universities, including junior and community colleges. *Prereq: G&C 500 Helping Relationships: Basic Concepts and Services.*

G&C 551 Contemporary College Students. Two sem hours

An examination is made of the changing undergraduate lifestyle, attitudes and characteristics. Focus is given to the dimensions of career education, outcomes/benefits of a higher education and the student as a learner. Attention is given to both the traditional and non-traditional college population in two- and four-year institutions. *Prereq: Open to guidance and counseling majors and graduate students in related fields.*

G&C 571 Cross Cultural Counseling. Two sem hours

Students will develop basic understanding and skills needed to counsel persons who are culturally, ethnically or linguistically different from themselves. *Prereq: G&C 505 Counselor Development: Basic Skills or equivalent or permission of instructor.*

G&C 572 Counseling Parents. Two sem hours

The course focuses on the significant parent counseling programs and techniques in current usage. Participants will have opportunities to utilize their learned counseling and communication skills in assisting parents develop effective parenting skills compatible with their cultural, ethnic, religious, interpersonal and social orientations. *Prereq: Graduate level status and G&C 505 Counselor Development: Basic Skills or permission of the instructor.*

G&C 590, 591 Special Topics. One and two sem hours (Formerly G&C 596 Seminar in Counselor Development)

Special courses and seminars will be offered dealing with contemporary topics and issues in the guidance and counseling field. These counselor development offerings will be designed primarily for graduate students and practitioners in the helping professions. Topics to be selected (see current schedule). *Prereq: Will be determined on basis of*

special topics being offered.

G&C 595 Workshop in Selected Areas. Two sem hours

Workshops will be offered dealing with selected areas within the guidance and counseling field. Such workshops may include areas such as the self-concept, career education, psychological education and other relevant topics of interest. *Prereq: Open to guidance and counseling majors and graduate students in related fields.*

G&C 610 Theories of Counseling. Two sem hours

The rationale, historical development and research underlying selected theories of counseling with emphasis on the implication of each theory for practice. Students are encouraged to develop a theoretical basis for their own counseling practice. *Prereq: Ten semester hours in guidance and counseling courses.*

G&C 611 The Elementary School Counselor. Two sem hours

The function of elementary school counselors, their evolving role and relationship to students, teachers, parents and special service personnel. Emphasis will be placed on techniques for the early identification of pupil's intellectual, emotional, social and physical characteristics; diagnosis of learning difficulties; and early use of available resources to meet student needs. *Prereq: Ten semester hours in guidance and counseling courses.*

G&C 613 The Secondary School Counselor. Two sem hours

Students will have the opportunity to further develop skills and techniques for working effectively with secondary school students. Consulting and coordinating skills for working with teachers, parents, administrators, referral agencies and pupil personnel staff will also be developed. *Prereq: Ten semester hours in guidance and counseling courses.*

G&C 620 Individual Appraisal in Guidance and Counseling. Two sem hours

Testing and non-testing procedures, techniques and the processes of psycho-educational appraisal and their application to counseling, guidance and per-

sonnel work. Major emphasis is placed on the relevance of individual assessment to an increase in self-understanding. *Prereq: G&C 510 Counselor Development: Counseling Process and G&C 520 Standardized Group Testing.*

G&C 622 Case Studies in Counseling. Two sem hours (Formerly G&C 612)

An opportunity for advanced students to make an intensive study of selected counseling cases. Analysis of these cases will enable students to develop competencies in case study techniques, appraisals of critical counseling areas and consultation with other professional staff. *Prereq: Ten semester hours in guidance and counseling courses.*

G&C 631 Dynamics of Life Development. Two sem hours (Formerly Dynamics of Vocational Life Development)

A study of life transitions and their impact on personal, social and vocational development will be examined. Theoretical concepts and research findings on adult development will be examined. Practical program applications of individual and group counseling will be explored. *Prereq: G&C 530 Career Development and Information Services.*

G&C 632 Vocational Rehabilitation Counseling. Two sem hours

Division of Vocational Rehabilitation: history, organization, legislation and role of the vocational rehabilitation counselor; principles and practices of vocational rehabilitation counseling; interviewing, referrals, establishing eligibility, determining vocational objectives; case reporting; adjustment counseling; selective placement and follow-up; counseling needs of physically and mentally handicapped clients; case studies and visits to rehabilitation agencies. *Prereq: G&C 530 Educational and Occupational Information.*

G&C 640 Group Process II. Two sem hours (Formerly G&C 542)

This course provides an experiential learning situation for students as they participate in and examine interpersonal relationships within a small group setting. Opportunities will be provided for participants to develop and assess group facilitation skills.

G&C 686 Counseling Practicum I. Two sem hours (Formerly G&C 680)

An introduction to supervised counseling experiences. Students are involved in a variety of counseling relationships, assisting individuals with personal, educational and vocational goals and decisions. Systematic analysis of counseling effectiveness is facilitated through a process of self, peer and supervisor evaluation.

Prereq: Permission of the Graduate Committee in guidance and counseling.

G&C 687 Counseling Practicum II. Two sem hours (Formerly G&C 685)

An advanced course in supervised counseling experiences. Students are involved in diverse counseling relationships designed to facilitate higher levels of counseling effectiveness.

Prereq: Permission of the Graduate Committee in guidance and counseling.

G&C 688 Supervision of Counseling Practicum. Two sem hours (Formerly G&C 686)

Provides enrollees with the opportunity to supervise students in a counseling practicum experience. Includes the critiquing of tapes, leading group discussions and evaluating the growth of beginning counselors.

Prereq: Permission of the Graduate Committee in guidance and counseling.

G&C 689 Field Work in Guidance, Counseling and Personnel Work. Two sem hours (Formerly G&C 681)

On-the-job experiences under professional supervision that afford the student practical experiences in counseling and personnel work. Settings for the field work may include elementary and secondary schools, colleges and universities, social and community agencies or other approved settings.

Prereq: Permission of the Graduate Committee in guidance and counseling.

G&C 694 Seminar: Counseling in the Community. Two sem hours

An opportunity to explore various aspects of community counseling including counselor's roles, professional issues faced by counselors in community

settings and strategies for working with clients. Emphasis will be on looking at the concerns of different client populations and ways of addressing these concerns both individually and programmatically. Students will have an opportunity for in-depth study of an area of interest.

Prereq: Ten semester hours in guidance and counseling.

G&C 697, 698, 699 Independent Studies. One and two and three sem hours

An opportunity to explore topics of interest to the student in an intensive and independent manner. Topics must be selected and an independent study pursued with the approval and supervision of a member of the faculty in guidance and counseling.

Prereq: Permission of the adviser.

COURSES FOR SPECIALIST'S DEGREE STUDENTS ONLY

G&C 786, 787, 788, 789 Counseling Internship. Two, three, four and six sem hours

An intensive field-based experience for candidates in advanced studies in counseling. Integrates advanced competencies and knowledge with professional supervision. Placements are made in a variety of community agency, school, college or institutional settings. Candidates apply for the internship and are approved for placement prior to registration. *Credit/No Credit.*

Prereq: Must have completed 10 semester hours of advanced studies course work and/or departmental permission.

G&C 797, 798, 799 Specialist in Arts Project. One, two, and three sem hours

An optional project for candidates for the Specialist in Arts degree. The project requirements can be satisfied by writing a descriptive report or review, developing informational materials or resources or conducting a research or evaluation study in guidance and counseling. Each student will be supervised by a committee consisting of a chairman and one additional member of the Graduate Committee.

Prereq: Permission of the adviser.

Prereq: G&C 540 Group Process I or equivalent.

G&C 650 Organization and Administration of Guidance Services. Two sem hours

A study of the philosophy and principles of guidance as implemented into practice. The organization and administration of the various guidance services and the guidance functions of various school staff members will be examined.

Prereq: Ten semester hours in guidance and counseling courses.

G&C 660 Community Resources in Counseling. Two sem hours

Students will learn to identify, analyze and develop the community resources needed by counselors who work in a variety of settings. Skills in identifying, referring and receiving client referrals also will be learned. Presentations by representative community agencies may be made in class or on-site during class time.

Prereq: G&C 505 Counselor Development: Basic Skills and G&C 510 Counselor Development: Counseling Process, or permission of instructor.

TENTATIVE SCHEDULE

Course	Winter	Spring	Summer	Fall
G&C 500	X	X	X	X
G&C 505	X	X	X	X
G&C 510	X	X	X	X
G&C 517				X
G&C 520	X	X	X	X
G&C 530	X		X	X
G&C 540	X	X	X	X
G&C 550				X
G&C 571	X			
G&C 610	X	X		X
G&C 611	X			
G&C 613	X			X
G&C 620	X			X
G&C 622				
G&C 631	X			
G&C 632				
G&C 640	X			
G&C 660				X
G&C 686	X	X	X	X
G&C 687	X			X
G&C 688	X			X
G&C 689	X	X	X	X
G&C 694	X	X		X
G&C 786	X	X	X	X
G&C 787	X	X	X	X
G&C 788	X	X	X	X
G&C 789	X	X	X	X

† Courses offered odd years.

The above schedule is subject to modification because of personnel and enrollment changes. Consult the official class schedule for each term. Courses are offered each term through Continuing Education as a supplement to the above schedule.

SPECIAL EDUCATION

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The Department of Special Education at Eastern Michigan University offers graduate programs leading to a master's degree, specialist's degree or state certification in most fields of specialization. Persons participating in these programs may utilize a variety of approaches and experiences in fulfilling the needed requirements. These avenues of learning may include course work, field studies, workshops, independent studies, internships, seminars and/or research projects.

OBJECTIVES

The general goals of graduate work within the Department of Special Education are:

1. to develop a comprehensive, viable and scientifically defensible philosophical foundation which will guide personal and professional behavior;
2. to extend and refine knowledge of handicapping conditions and to apply this new knowledge base to understanding more fully the implications of handicapping conditions to the handicapped individual, his family and society;
3. to improve existing skills and to acquire new skills in the identification, diagnosis and use of prescriptive teaching methods associated with various handicapping conditions;
4. to understand, compare, analyze and synthesize a variety of therapeutic, curricular and continuum of service models, instructional systems and theoretical constructs used in the care and treatment of handicapped persons;

5. to acquire a working knowledge of the way philosophical positions, psychosocial factors, economic events, legal mandates and political forces impinge upon and shape benefits, rights, services and programs for the handicapped;
6. to enable the student to perform in a variety of leadership, administrative and supervisory roles in providing services and programs for the handicapped;
7. to understand, conduct and use research for problem solving and professional growth;
8. to provide the non-majoring student with basic knowledge and skills to understand, accept and work more effectively with the handicapped in the mainstream of education.

MASTER'S DEGREE IN SPECIAL EDUCATION

Through the Graduate School at Eastern Michigan University, the Department of Special Education offers a non-categorical master's degree that encompasses the range and depth requisite to accommodate contemporary programs and service delivery systems. The program is designed to allow maximum flexibility in meeting the needs of individual students while maintaining the basic academic integrity implicit in a graduate program.

Admission Requirements

The graduate student seeking admission

to the Master of Arts degree program in the Department of Special Education is required to:

1. meet Graduate School admission requirements;
2. have a valid teaching credential (see graduate adviser for exceptions);
3. submit two (2) letters of recommendation for admission to the program;
4. have a successful personal interview with an assigned adviser or committee.

Additionally, candidates applying for the learning disability sequence must possess an endorsement in a special education area or a master's degree in an education related field.

Program Requirements

The graduate student seeking a Master of Arts degree through the Department of Special Education must:

1. complete a minimum of 30 semester hours of approved graduate credit.
2. complete a minimum of 20 semester hours of approved 600 level courses (not including practicum credits);
3. complete the degree requirements within six years of enrolling for the first class applicable to the degree program;
4. meet all other requirements of the Graduate School.

SPEECH AND LANGUAGE PATHOLOGY

Students who seek admission in the graduate program in speech and language pathology who do not have undergraduate degrees in speech pathology must enroll as full-time students and complete the undergraduate deficiencies before entry into the graduate program. Also, they must consult a graduate adviser in speech pathology and audiology in planning their graduate program.

Admission Requirements

In addition to the requirements listed above, a student applying to the speech and language program must:

1. have a 3.0 grade point average in the undergraduate major;
2. submit two letters of recommendation from:
 - a) a clinic supervisor, and
 - b) a professor in the undergraduate major area of study.

Program Requirements

The program requirements for attaining a master's degree in speech pathology and audiology differ in some aspects from those of the Graduate School in that:

1. only six semester hours of transfer credit will be accepted;
2. all candidates must meet the clinical and academic requirements for certification of the American Speech, Language and Hearing Association prior to receiving their degrees;
3. all candidates must complete an approved independent study for two, four or six hours of credit.

SPECIALIST'S DEGREE IN SPECIAL EDUCATION

The Department of Special Education offers a Specialist in Arts degree designed to prepare highly qualified leadership personnel in two general areas of study:

1. administration and supervision of special education programs;
2. curriculum development.

Admission Requirements

The graduate student seeking admission to this degree program is required to:

1. meet Graduate School admission requirements;
2. have a master's degree from an accredited institution;
3. have three years of documented teaching experience in special education;
4. have an endorsement in one area of special education;
5. submit three letters of recommendation;
6. have a successful personal interview;
7. achieve acceptable scores on the Miller Analogies Test or the Graduate Record Exam.

Program Requirements

The program requirements for the specialist's degree include:

1. a minimum of 32 hours beyond the master's degree;
2. an independent study;
3. an internship in the field of study;
4. oral and written examinations near the completion of program;
5. *an overall G.P.A. of 3.3 ("B+ ") is required for graduation.*
6. meet all other requirements of the Graduate School.

ENDORSEMENT/APPROVAL SEQUENCE

Graduate students wishing to qualify for teaching in an area of special education may enroll in an endorsement sequence at the graduate level. Each endorsement/approval sequence accommodates the requirements established by the Michigan Department of Education—Special Education Rules. Endorsement/approval sequences are available in the areas of emotionally impaired, visually impaired, hearing impaired, learning disabilities, physically or otherwise health impaired, speech and language impaired, physical education teacher for handicapped, director of special education and supervisor of special education.

A student must be free from any probation, administrative or academic, before an internship or practicum experience is arranged.

It is important for the student to realize that the endorsement/approval

sequence is independent of a degree program. The minimum degree requirements do not guarantee endorsement/approval and the meeting of endorsement standards should not be construed as the completion of degree requirements.

Admission Requirements

1. The student applying for an endorsement in a specific special education area must meet the requirements specified under the master's degree.
2. The student applying for an approval sequence as a special education director or supervisor must meet the admission requirements for the specialist's degree.

DISMISSAL FROM PROGRAM POLICY

A student may be subject to dismissal from graduate endorsement or degree programs in this department if the student:

1. does not maintain a 3.0 ("B") cumulative grade point average and in special education courses for two successive enrollment periods;
2. does not demonstrate by performance reasonable aptitude, maturity, stability, skill and understanding necessary for success in the professional field of special education.

A student identified as being at risk for dismissal from the endorsement or degree programs will have the opportunity to meet with faculty in the program area to develop a plan for correction of any deficiency.

The opportunity to correct deficiencies usually will not be extended beyond two enrollment periods.

The continuance or termination decision will be made by the faculty in the program area. Students may request a meeting with the faculty to apprise them of extenuating circumstances. The faculty decision will be final. The decision will be transmitted to the student in writing by the department. If the student is dismissed from the department's program, the Graduate School will be notified to change the admission status from degree admission status to that of a special student.

ADDITIONAL PROGRAMS

In addition to the more specific courses that are offered for special education majors, the graduate program offers a number of general courses that are open to regular classroom teachers and other non-majors. These courses are designed to provide the student with a better understanding of the child with problems who might be found in any classroom. The Department of Special Education is also cooperating with the Departments of Psychology and Teacher Education to prepare people to be school psychologists. This program is described more completely under "Psychology."

GENERAL COURSES

SGN 506 Education of Exceptional Children. Two sem hours

Problems and methods involved in the adjustment and training of exceptional children in the school, e.g., the mentally retarded, the gifted, the deaf, the blind, physically handicapped, the learning disabled, the emotionally disturbed and the delinquent.

Not open to students who have credit in SGN 251 Education of Exceptional Children.

SGN 510 The Handicapped Child in the Regular Classroom. Three sem hours

A study of the nature and needs of handicapped children being educated in the least restrictive educational environment of the regular classroom. A review of philosophical and legal bases for mainstreaming. A discussion of issues, concerns and problems related to education of the handicapped in the mainstream of education. *Not open to students holding/completing special education endorsement.*

SGN 511 The Instruction and Behavior Management of the Handicapped in the Regular Classroom. Three sem hours

A study of the learning and behavioral needs of handicapped pupils in regular classroom settings. Review of the nature of learning styles, models of prescriptive teaching, and approaches to understanding and working with behavior problems. *Not open to students holding/completing special education endorsement.*

Prereq: SGN 510 The Handicapped Child in the Regular Classroom.

SGN 514 Measurement and Diagnosis in Special Education. Three sem hours

Psychological evaluation and assessment; the role of tests in the assessment of intellectual capacity, educability, emotional adjustment and visual and auditory limitations. *Not open to students who have credit in SGN 390 Measurement and Diagnosis in Special Education.*

Prereq: SGN 506 Education of Exceptional Children.

SGN 521 Sexuality for Persons with Disabilities. Two sem hours

Exploration of special problems, concerns, needs and practices of persons with disabilities in relation to development of healthy human sexuality. *Prereq: Senior standing or graduate student.*

SGN 590, 591, 592 Special Topics in Special Education. One, two and three sem hours (Formerly SGN 539)

Experimental courses designed to investigate specific topics of concern related to handicapping conditions.

SGN 605 Rehabilitation Counseling in Special Education. Two sem hours

Designed to integrate the theories and practices of social psychology, physical reconstruction, special education and vocational guidance as they relate to life planning for the physically handicapped.

Prereq: Major/minor.

SGN 613 The Slow Learner in the Classroom. Two sem hours (Formerly SGN 513)

Adjusting the curriculum for slow-learning children; problems of identification, methods and materials, curriculum modifications and remedial techniques. *Not an equivalent of or a substitute for SMI 558 Education of the Mentally Impaired I and SMI 559 Education of the Mentally Impaired II.*

SGN 615 Social Psychology of the Handicapped. Two sem hours (Formerly SGN 515)

Principles of social psychology which influence handicapped individuals and their environment, society as it affects handicapped individuals and individuals as they affect society.

Prereq: SGN 506 Education of Exceptional Children.

SGN 619 Administration and Supervision of Special Education. Two sem hours (Formerly SGN 519)

Organizing or improving a program for exceptional children; philosophical, legal and practical aspects.

Prereq: SGN 506 Education of Exceptional Children and six hours of credit in special education.

SGN 620 Family-School Relationship in Special Education. Two sem hours (Formerly SGN 520)

Discovering and analyzing the home problems which have educational implications for the child.

Prereq: SGN 506 Education of Exceptional Children.

SGN 621 Law and Public Policy for the Handicapped. Three sem hours

An extensive study of state and federal legislation as it applies to the handicapped. Teacher responsibility and liability under law. The effect of case law and judicial decisions on future legislation.

Prereq: SGN 506 Education of Exceptional Children and six additional hours in special education.

SGN 669 Occupational Information in Special Education. Two sem hours (Formerly 569)

Experiences in securing information of cultural, social, educational and occupational opportunities in the community for exceptional children; visits to industry, community, service agencies and educational institutions.

Prereq: SGN 506 Education of Exceptional Children.

SGN 675 Psychoeducational Diagnosis and Educational Programming for Children with Learning Problems. Four sem hours (Formerly SGN 541)

Psychoeducational diagnosis, assessment and prescription for children with a variety of learning problems. A review of instructional systems, methodology and materials useful in remediation of specific learning problems.

SGN 679, 680, 681 Special Topics in Special Education. One, two and three sem hours

Experimental courses designed to investigate specific topics of concern in special education.

Prereq: Departmental permission.

SGN 683 Workshops. Two sem hours (Formerly SGN 595)

Please check the current class schedule for specific offerings.

Rehabilitation in Special Education. Parent Child Counseling in Special Education.

Applications of New Teaching Materials in Special Education.

SGN 686 Internship in Special Education. One sem hour (Formerly SGN 680)

Prereq: Permission of adviser.

SGN 687 Internship in Special Education. Two sem hours (Formerly SGN 681)

Prereq: Permission of adviser.

SGN 688 Internship in Special Education. Three sem hours (Formerly SGN 682)

prereq: Permission of adviser.

SGN 689 Supervised Internship with Handicapped Children. Four sem hours (Formerly SGN 594)

Supervised student teaching with handicapped children in local schools and institutions. *Credit/No Credit.*
Prereq: Permission of adviser.

SGN 694 Interdisciplinary Seminar in Special Education. Two sem hours (Formerly SGN 696)

An intensive study of selected problems in special education. *Open only to majors in special education.*

SGN 697, 698, 699 Independent Studies. One, two and three sem hours

An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: Departmental permission.

EMOTIONALLY IMPAIRED COURSES

SEI 503 Pre-Clinical Experience/Overview of Emotionally Impaired. Two sem hours (Formerly SEI 583 Pre-Clinical Experience)

Experiences which provide the student with an opportunity to work with impaired children, help students to understand these children and also enable them to evaluate their own personal qualifications for working with children in their chosen field. Evaluations of the student's performance will be obtained from a supervising person. Graduate students in the area of the emotionally impaired will complete 150 hours of experience before the internship.
Credit/No Credit.

SEI 509 Emotionally Impaired Children. Four sem hours (Formerly SEI 519)

Theoretical considerations of disturbed behavior emphasizing the various models of conceptualization. Focus will be on the student in educational programs. *Not open to students who have*

credit in SEI 301 Emotionally Impaired Children.

Prereq: PSY 360 Abnormal Psychology. For emotionally impaired majors, SEI 503 Pre-Clinical Experience/Overview of Emotionally Impaired is an additional prerequisite.

SEI 511 Methods and Curriculum for Emotionally Impaired. Two sem hours

Curriculum materials, methods and techniques for educating the emotionally impaired child. *Not open to students who have credit in SEI 401 Methods and Curriculum for Emotionally Impaired Children.*
Prereq: SEI 509 Emotionally Impaired Children

SEI 512 Organization of Programs for the Emotionally Impaired. Two sem hours

Program variations and their adaptations for the education of emotionally impaired children; the theoretical and philosophical foundations of programs; behavior management techniques, teacher role and professional relationships. *Not open to students who have credit in SEI 402 Programs for the Emotionally Impaired.*
Prereq: SEI 509 Emotionally Impaired Children.

SEI 603 Therapeutic Management of Emotionally Impaired Children. Two sem hours

Techniques in dealing with emotionally impaired children; surface manipulation of behavior and life space interview.
Prereq: SEI 509 Emotionally Impaired Children and presently working with children.

SEI 620 Psychological and Educational Techniques for Emotionally Impaired. Two sem hours (Formerly SEI 696)

Advanced course for graduate students in the area of emotionally impaired. Variations in educational programming for the impaired and socially maladjusted are discussed. Each student is required to work individually with an impaired or maladjusted child to make an analytical, educational evaluation of the child's learning needs and to implement this analysis in a tutorial relationship with the child.

Prereq: SEI 511 Methods and Curriculum for Emotionally Impaired and

SEI 512 Organization of Programs for the Emotionally Impaired.

SEI 630 Introduction to Autism. Two sem hours

This course introduces the student to the definition of the syndrome of autism and the various theories with regard to cause and treatment. The student is also given an overview of the unique problems encountered in educating this severely impaired population including intervention strategies and techniques.

Prereq: Graduate students who have departmental permission and/or endorsement in one area of special education.

SEI 663 The Emotionally Impaired Child in the Regular Classroom. Two sem hours (Formerly SEI 563)

For regular classroom teachers who do not have training in dealing with the emotionally impaired child. The behavior of impaired children, techniques for dealing effectively with symptomatic behavior, a case study analysis of children being taught by individuals electing the course. This course does not apply toward certification to teach emotionally impaired children in special educational programs.

Prereq: Regular classroom teacher. Others with departmental permission.

SEI 694 Seminar in the Emotionally Impaired Child. Two sem hours (Formerly SEI 596)

Course consists of a review and discussion of some contemporary issues in the education of the impaired, following which students elect areas for more intensive exploration through library study or actual data gathering. Students present their results and conclusions to the group in a discussion setting.
Prereq: Departmental permission.

HEARING IMPAIRED COURSES

SHI 510 Survey of Education and Guidance for the Hearing Impaired. Two sem hours

A survey course covering the history of the education of the deaf; current educational programming; counseling, guidance and vocational habilitation.

SHI 514 Speech for the Hearing Impaired I. Two sem hours

Analysis of the particular problems of speech of the deaf, methods of analyzing and transcribing speech, techniques for the development of the young deaf child.

SHI 518 Speech for the Hearing Impaired II. Two sem hours

Speech development and improvement for the older deaf child; includes supervised speech tutoring.

Prereq: SHI 514 Speech for the Hearing Impaired I.

SHI 522 Language for the Hearing Impaired. Four sem hours

The effects of hearing loss on language development, the structure of the English language and principles of grammar, a survey of the varying language methods with emphasis on Fitzgerald Straight Language System. Activities include field trips, preparation of lesson plans and teaching materials.

Prereq: SHI 510 Survey of Education and Guidance for the Hearing Impaired.

SHI 526 American Sign Language: An Introduction. Two sem hours

A study of the rationale for manual communication systems with the hearing impaired involving the combined use of manual alphabet and language of signs. Developing fluency in manual communication skills will be a part of the course.

SHI 530 School Subjects for the Hearing Impaired. Four sem hours

Principles and methods of teaching reading and school subjects to the hearing impaired and the adaptation of regular curriculums and materials to meet the needs of the hearing impaired.

SHI 554 Auditory Training and Speechreading for the Hearing Impaired. Three sem hours

Study of the avenues of receptive communication available to the acoustically handicapped, methods of developing speech reading skills, methods of training children with residual hearing and the care and use of group and individual amplification equipment.

SHI 575 The Hard of Hearing Child. Two sem hours

A study of the diagnosis and educational planning considerations for the hard of hearing child as opposed to those for the deaf child. Educational innovations and technology as applied to the hard of hearing individual are studied.

SHI 582 Evaluation and Training of Hearing Impaired Infants. Two sem hours (Formerly SHI 682)

Management of hearing impaired infants, with emphasis on early language development, parent counseling, observation of hearing impaired infants and practice.

Prereq: Undergraduate major in education of the hearing impaired or departmental permission.

SHI 673 Advanced Speech for the Hearing Impaired. Two sem hours (Formerly SHI 688)

Review of classical approaches, a study of recent research and practical application of findings to the development and improvement of speech for the deaf and hard of hearing. Includes supervised diagnostic and therapeutic practicum.

Prereq: Undergraduate major in education of the hearing impaired or speech pathology.

SHI 675 Secondary School Subjects for the Hearing Impaired. Four sem hours (Formerly SHI 686)

Principles and methods of teaching secondary school subjects to the hearing impaired, the improvement of reading skills and written composition, techniques of correcting language errors and adapting the regular school curriculum to meet the demands of the hearing impaired.

Prereq: Undergraduate major in education of the hearing impaired.

SHI 687 Auditory Training and Speechreading Practicum. Two sem hours (Formerly SHI 593)

Sixty clock hours of directed observation and rehabilitation practice in the classroom with deaf children.

Prereq: SHI 554 Auditory Training and Speechreading for the Hearing Impaired.

SHI 688 Clinical Internship in Hearing Impaired Education. Four sem hours (Formerly SHI 694)

Opportunity to practice will be provided, as well as an opportunity to work as a part of a professional team in rehabilitation procedures.

Prereq: Undergraduate major in education of the hearing impaired.

SHI 689 Public School Internship. Four sem hours (Formerly SHI 594)

Supervised teaching with hearing impaired persons. *Credit/No Credit.*

Prereq: Undergraduate major in education of the hearing impaired, concurrent enrollment in SHI 694 Seminar Hearing Impaired Education.

SHI 694 Seminar Hearing Impaired Education. Two sem hours (Formerly SHI 596)

A comparative study of the varying curriculums of hearing impaired education programs in Michigan. Includes educational programming, school organization, use of community resources and parent counseling.

Prereq: Concurrent enrollment in SHI 689 Public School Internship.

LEARNING DISABILITIES COURSES

SLD 567 Education of Children with Learning Disabilities. Two sem hours

Planning and effecting educational programs for children who have disturbances in perception, thinking and emotional behavior. Theories as they relate to the central nervous system, teaching techniques, classroom management, case studies, research and teacher-child and parent relationships. *Not open to students who have credit in SLD 468 Education of Children with Learning Disabilities.*

Prereq: SGN 506 Education of Exceptional Children.

SLD 672 Methods for the Learning Disabled Child. Two sem hours (Formerly SLD 683 Workshop: Sensory Training for Perceptually Impaired Children)

Focuses on the basic principles of diagnostic-prescriptive education.

Sensory/perceptual processing of information necessary for growth in achievement will be stressed. The achievement areas of listening comprehension, oral expression, basic reading skills, reading comprehension and mathematics will receive emphasis.

Prereq: SLD 567 Education of Children with Learning Disabilities.

SLD 673 Language: Acquisition, Disorders, Evaluation. Three sem hours (Formerly SLD 683 Workshop: Language Problems of Neurologically Impaired)

This course presents information concerning normal language acquisition, descriptions of disorders of language development in handicapped populations, classroom evaluation techniques and guidelines for referral to a language specialist.

SLD 678 Diagnostic Prescriptive Programming for the Learning Disabled. Four sem hours (Formerly SLD 683 Workshop in Diagnostic Procedures in Learning Disabilities and SLD 693 Seminar in Special Education I)

Preparation for diagnostic practicum in learning disabilities. Review of learning disability theories, administration-interpretation of assessment techniques and materials, writing of educational prescriptions and survey of service delivery systems.

Prereq: Permission of the department; completion of all learning disabilities courses except SLD 691 Diagnostic Practicum Learning Disabilities and SLD 712 Consultation Skills in Learning Disabilities.

SLD 683 Workshops. Two sem hours (Formerly SLD 595)

Please check the current class schedule for specific offerings.

Prereq: Departmental permission.

SLD 691 Diagnostic Practicum Learning Disabilities. Six sem hours (Formerly SLD 593)

Intensive study of children referred for educational diagnosis. Study results in precise educational prescription to be implemented in child's school. *Students must elect SLD 678 Diagnostic Prescriptive Programming for the Learning Disabled immediately prior to this course.*

Prereq: SLD 678 Diagnostic Prescriptive Programming for the Learning Disabled and departmental permission.

SLD 712 Consultation Skills in Learning Disabilities. Two sem hours (Formerly SLD 694 Seminar in Special Education II)

Follow-up of specific cases from diagnostic practicum. Emphasis on the nature and problems of consultative activities. State and federal legal requirements for educational programming.

Prereq: SLD 691 Diagnostic Practicum Learning Disabilities.

MENTALLY IMPAIRED COURSES

SMI 557 Mental Deficiency. Two sem hours

The nature and causes of mental deficiency; characteristics and social control of mental defectives. Opportunities are provided for observation and clinical studies. *Not open to students who have credit in SMI 350 Introduction to Mental Retardation.*

SMI 558 Education of the Mentally Impaired I. Two sem hours

Selection and preparation of elementary level curriculum materials for mentally impaired children; the methods and devices used in presenting these materials. Opportunities provided for functional experiences. *Not open to students who have credit in SMI 427 Educating the Elementary Student with Mental Retardation.*

Prereq: SGN 506 Education of Exceptional Children and SMI 557 Mental Deficiency.

SMI 559 Education of the Mentally Impaired II. Two sem hours

Educating the mentally impaired in the junior-senior high school age group; vocational and occupational education. *Not open to students who have credit in SMI 428 Educating the Secondary Student with Retardation.*

Prereq: SGN 506 Education of Exceptional Children and SMI 557 Mental Deficiency.

SMI 565 Habilitation of the Trainable Mentally Impaired Child. Two sem hours

Habilitation and education of the

trainable impaired child: philosophy and objectives, classroom management and procedures, program coordination and evaluation, parent counseling, professional personnel, legislation, housing, transportation, sheltered workshop and other ancillary services.

Prereq: SMI 557 Mental Deficiency.

SMI 615 Contemporary Problems in Mental Impairment. Two sem hours (Formerly SMI 507)

Contemporary issues and problems relating to the mentally impaired: institutionalization, sterilization, euthanasia, the parent movement, federal legislation, demonstration project and current research.

SMI 683 Workshops. Two sem hours (Formerly SMI 595)

Please check the current schedule for specific offerings.

Pre-School Culturally Deprived Mentally Impaired Children. Physical Education and Recreation for the Mentally Impaired. Resource Room and Curriculum Construction.

Prereq: SGN 506 Education of Exceptional Children.

SMI 694 Seminar in Mental Impairment. Two sem hours (Formerly SMI 596)

Focuses on the various problems related to mental impairment and the sociological and psychological theory as applied to the field. Students are expected to propose, analyze and conduct research from reviews of the literature and applied field study problems.

Prereq: Eight graduate hours in special education.

SMI 697, 698, 699 Independent Studies. One, two and three sem hours (Formerly SMI 597, 598, 599)

Prereq: Departmental permission.

PHYSICALLY AND OTHERWISE HEALTH IMPAIRED COURSES

SPI 510 Education and Treatment of Cerebral Palsied Children. Two sem hours

An interpretation of the cerebral palsied child, types of cerebral palsy and the problems of education and treatment. Opportunity is provided to observe children in the classroom and treatment room.

Prereq: SGN 506 Education of Exceptional Children.

SPI 532 Pathology of the Physically Impaired. Two sem hours (Formerly SPI 537)

Orthopedic disabilities, birth anomalies and health impairing conditions of children; structure and function of the human body as it relates to these disabilities. Laboratory period and case studies are required.

Prereq: SGN 506 Education of Exceptional Children.

SPI 534 Therapeutic Care of the Physically Impaired Child. Two sem hours (Formerly SPI 538)

Overview of those ancillary support services necessary in the habilitation and rehabilitation of the health and physically impaired.

Prereq: SPI 532 Pathology of the Physically Impaired.

SPI 536 Methods of Teaching Physically Impaired Children. Two sem hours

Educational and psychological needs of physically and otherwise health impaired children, teaching techniques to meet these needs and problems that arise in group adjustment. Observation and laboratory are required.

Prereq: SPI 532 Pathology of the Physically Impaired.

SPEECH AND LANGUAGE IMPAIRED COURSES

SLI 500 Introduction to Speech Pathology. Two sem hours

An overview of speech, language and hearing problems, their causes and the remedial procedures which the classroom teacher may employ. Disorders of articulation. *Not open to students who have credit in SLI 241 Introduction to Speech Pathology. Graduate credit to non-majors only.*

SLI 508 Variant English in the Educational Process. Three sem hours (Formerly Black Language in the Educational Process)

Survey of the language and cultural influences of major racial and/or ethnic groups on American education. Both native American (black, Hispanic, American Indian, etc.) and immigrant (Arab, Oriental, etc.) influences on language and education are covered.

SLI 537 Clinical Practice in Hearing Testing. Two sem hours

Supervised practice in hearing testing including air and bone conduction, special procedures and speech audiometry.

Prereq: SLI 578 Audiometric Testing and departmental permission.

SLI 538 Clinical Practice in Hearing Therapy. Two sem hours

Supervised practice in auditory training and speechreading with children and adults.

Prereq: SHI 554 Auditory Training and Speechreading for the Hearing Impaired and departmental permission.

SLI 550 Phonology. Two sem hours (Formerly Articulation)

A critical examination of the assumptions underlying the etiological, symptomatological and therapeutic rationales currently used in articulation therapy and research.

Prereq: Undergraduate major in speech pathology and audiology.

SLI 556 Anatomy of the Head, Neck and Trunk. Two sem hours

Detailed study of the skeletal, neurological, physiological and muscular system of the head, neck and trunk with special emphasis on the speech mechanism. Laboratory dissection will be a part of the course.

Prereq: SLI 316 Speech Science or equivalent. Undergraduate major in speech pathology and audiology.

SLI 558 Language Therapy. Two sem hours

Incorporating newly acquired or recently modified speech patterns into communicative behavior. Patterns and codes of language; the development of therapeutic activities for individuals with speech, hearing or language impairments.

Prereq: Undergraduate major in speech pathology and audiology.

SLI 562 Evaluation and Selection of Hearing Aids. Two sem hours

Interpretation of audiograms; electroacoustic measurement of hearing aids; evaluation, selection and care of hearing aids for the hearing impaired.

Prereq: Departmental permission.

SLI 568 Diagnostic Methods in Speech, Language and Hearing. Three sem hours

Diagnostic procedures and routines used in the evaluation of speech and language disorders. Emphasis on familiarization with available evaluative tools and practical experience in conducting actual diagnostic sessions: client interview, interpretation of test results, relating of information to parents and report writing.

Prereq: Undergraduate major in speech pathology and audiology.

SLI 578 Audiometric Testing. Three sem hours

Advanced techniques of testing the auditory function: interpretation of audiograms, hearing aid evaluations and use of differential hearing assessment techniques for children and adults with hearing disorders.

Prereq: SHI 392 Introduction to Audiology, permission of department, lab required, no student on academic probation.

SLI 595 Workshops. Two sem hours

Please check the current class schedule for specific offerings.

Stuttering.

Language Development.

Prereq: Undergraduate major in speech pathology and audiology.

SLI 607 Colloquium in Speech Pathology. Two sem hours (Formerly SLI 696 Seminar in Speech Pathology)

An examination of current research dealing with theoretical and therapeutic implications in the various pathologies of speech. Opportunity for individual investigation and study provided.

Credit/No Credit.

Prereq: Undergraduate major in speech pathology and audiology.

SLI 610 Cleft Palate. Two sem hours

Nature and etiology of palatal and facial deformities, surgical procedures and related therapy. Observation of dental, medical and social service agencies.

Prereq: Undergraduate major in speech pathology and audiology.

SLI 612 Motor Speech Disorders.
Two sem hours
(Formerly Cerebral Palsy)

Examines the nature, etiology and treatment of speech disorders resulting from neuropathologies. Related intellectual, perceptual, social and emotional problems will be considered as well as the neuromuscular symptoms. Current speech pathology approaches will be emphasized within a total therapeutic program.

Prereq: Undergraduate major in speech pathology and audiology.

SLI 614 Aphasia. Three sem hours

Designed to provide a theoretical framework for understanding the symbolic language problems of aphasia and current therapeutic approaches to the problem. Aphasia resulting from cerebral insult after language has been established, related physical and behavioral disturbances.

Prereq: Undergraduate major in speech pathology and audiology.

SLI 616 Experimental Phonetics.

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.

SLI 618 Language and Learning Theories. Two sem hours

The nature and function of language and communication via linguistics, semantics and phonetics, with special emphasis placed on learning theories and their relationship to language; speech and communication behavior.

Prereq: Undergraduate major in speech pathology and audiology.

SLI 620 Consulting and Interviewing in Speech Pathology. Three sem hours

Instruction and experiences in preparing students to manage interviewing, consulting and educational activities for families of speech and hearing handicapped and/or clients who are handicapped.

Prereq: Major in speech pathology, audiology or hearing impaired.

SLI 652 Disorders of Voice. Two sem hours

An advanced course in disorders of voice involving a study of current literature and laboratory experiences with clinical equipment and case centered video tape recordings. Special emphasis on psychosomatic voice disorders and the voice problems of the laryngectomee.

Prereq: Major in speech pathology, audiology or hearing impaired; graduate status.

SLI 654 Stuttering II: Disorders of Fluency. Two sem hours

An advanced course in disorders of fluency involving research and the development of rationale for treatment of stuttering, cluttering and disruption of speech rate resulting from organic pathology.

Prereq: Major in speech pathology and audiology; graduate status.

SLI 687 Clinical Internship in Speech Pathology II. Two sem hours
(Formerly SLI 694)

Opportunity to practice speech correction in a clinical setting. Experience with children and adults with multiple handicaps.

Prereq: Undergraduate major in speech pathology and audiology.

SLI 689 Public School Internship in Speech Pathology I. Four sem hours
(Formerly SLI 594)

Supervised clinical practice with speech impaired persons. The first internship is completed in a public school setting.

Credit/No Credit.
Prereq: Undergraduate major in speech correction and concurrent enrollment in SLI 694 Seminar in Public School Speech Pathology.

SLI 694 Seminar in Public School Speech Pathology. Two sem hours
(Formerly SLI 596)

Emphasizes professional ethics, organization and administration of speech pathology programs in all settings. Includes state laws governing special education, professional growth and development and employment practices and procedures. *Credit/No Credit.*
Prereq: Concurrent enrollment in SLI 689 Public School Internship in Speech Pathology I.

SLI 697, 698, 699 Independent Studies.
One, two and three sem hours

An intensive study of a problem or group of problems under the direction of a University faculty member.

Credit/No Credit.

Prereq: Departmental permission.

OTHER COURSES

No more than nine (9) hours of undergraduate course work are permitted in the earning of any graduate degree.

The following undergraduate courses in the Special Education Department may be taken for graduate credit, with the adviser's approval:

Emotionally Impaired

SEI 401 Methods and Curriculum for the Emotionally Impaired (2)

SEI 402 Programs for Emotionally Impaired Children (2)

SEI 448 Seminar in Emotionally Impaired (2)

Learning Disabilities

SLD 468 Education of Children with Learning Disabilities (2)

Mentally Impaired

SMI 444 Seminar in Mental Impairment (2)

Physically and Otherwise Impaired

SPI 412 Applied Aspects of Teaching Physically Impaired Children (2)

SPI 414 Educational Strategies for Teachers of the Physically Impaired (4)

SPI 446 Seminar in Physically Impaired (2)

Speech and Language Impaired

SLI 452 Voice (3)

SLI 454 Stuttering (3)

Visually Impaired

SVI 450 Seminar in Visually Impaired (2)

Upper division undergraduate courses suitable for use as cognates by majors in other fields:

SLD 468 Education of Children with Learning Disabilities (2)

TEACHER EDUCATION

(Formerly Curriculum and
Instruction, Educational Psychology
and Social Foundations)

Marvin Pasch
Department Head
234 Boone Hall
487-3265

James T. Bushey
Bernard Rose
Coordinators of Advising
234 Boone Hall
487-3260

The Department of Teacher Education offers eight programs leading to the M.A. degree: six in curriculum and instruction, one in educational psychology and one in social foundations. The six programs in curriculum and instruction are: early childhood education, elementary education, middle school education, secondary school teaching, K-12 curriculum and reading. In addition, a 30 hour post-master's program is offered which leads to a Certificate of Advanced Studies in Curriculum and Instruction.

At the present time, there are no graduate degree programs in either audio-visual or library science; however, the Department of Teacher Education offers courses in educational media.

ADMISSION TO THE PROGRAM

The following procedures are common to all programs; however, some programs have additional procedures and these are presented following descriptions of the particular program.

Students must meet the Graduate School degree admission requirements. Undergraduate and graduate transcripts should be forwarded directly to the Graduate School at the time of application for admission. When the student indicates to the Graduate School the particular program to be pursued and the admission requirements of the Graduate School have been satisfied, the Graduate School forwards copies of the transcript(s) to the coordinator of advising for the particular program. After the student has received notifica-

tion of admission to the program and the adviser's name, arrangements should be made for a conference with the adviser for the purpose of developing a program of study.

Once the program of study has been developed, a copy is filed with the Graduate School. Should the student wish to modify the program of study, approval must be obtained from the adviser. The adviser reports all changes in program to the Graduate School.

CURRICULUM AND INSTRUCTION GRADUATE PROGRAMS

Early Childhood Education

The program in early childhood education is designed for the professional preparation of teachers and other early childhood education specialists who are interested in working with the age range of birth through nine years, or prekindergarten through third grade. Students can plan programs with their advisers which will enable them to meet the state of Michigan requirements for the Z A Endorsement in Early Childhood Education for the elementary teaching certificate.

Elementary Education

The program in elementary education focuses on basic concepts of the child's growth, development and behavior and on the multidimensional aspects of the teacher's role. The purpose of the program is to provide the increased depth and breadth in theoretical foundations and practical knowledge which ensure more effective service as a classroom teacher in the elementary school.

Middle School Education

The program in middle school education enriches the foundations' work in education while providing opportunity to select courses which enhance understanding of the adolescent and the programs associated with the middle school. Emphasis is placed also on courses which improve teaching effectiveness.

Secondary School Teaching

The program in secondary school teaching enriches the foundations' work in secondary education while providing opportunity to select courses which enhance the teacher's understanding of secondary pupils and the secondary

school curriculum. Emphasis is placed also on courses which strengthen teachers' competencies in their teaching fields.

K-12 Curriculum

The program in K-12 curriculum is designed for those whose professional interests and responsibilities recommend a broad understanding of the current controversies and trends in education and the historical, social and philosophical influences which have shaped the K-12 curriculum.

Reading

The program in reading is designed for the professional preparation of classroom teachers, special teachers of reading at both elementary and secondary levels, supervisory reading specialists such as consultants, coordinators and supervisors and specialists for reading clinic positions including clinic directors and reading counselors. The program is consistent with the "Minimum Standards for Professional Training of Reading Specialists" as defined by the International Reading Association. Students can plan programs with their advisers that will enable them to meet the state of Michigan requirements for an endorsement in reading.

The Certificate of Advanced Studies in Curriculum and Instruction (CASCI)

The Certificate of Advanced Studies in Curriculum and Instruction (CASCI), a 30 hour post-master's program, offers an opportunity for post-master's teachers to select and study experiences which are specifically related to their current professional needs. There are no pre-determined course requirements. Advisers approve program choices which teachers make in accordance with their individual desires for professional growth.

CASCI is offered in response to the need for relevant, flexible, individualized programs which will enable career teachers to keep abreast of new developments and to respond to the professional challenges in their classrooms and in their school districts.

A teaching certificate, a master's degree from an accredited university and a minimum of one year's teaching experience are prerequisite to acceptance in the program. *For further information, please contact Dr. Robert Fisher, adviser, at 487 3260.*

CURRICULUM AND INSTRUCTION

Admission to the Program

Students must meet Graduate School degree admission requirements. Undergraduate records should be forwarded directly to the Graduate School at the time of application.

A coordinator of graduate advising of the Department of Teacher Education will assign an adviser to each student following receipt of the proper records from the Graduate School and acceptance into the program. The student will receive notification of the adviser's name and should arrange a personal interview in order to develop a program of graduate study.

Degree Requirements

Candidates for the degree must complete:

1. all work indicated in the program of study;
2. a minimum of 30 semester hours which include the core or required courses;
3. all courses applicable to the degree with a "B" average;
4. the application for graduation and obtain the adviser's recommendation; and
5. all other requirements for the degree adopted by the Graduate School of Eastern Michigan University.

CURRICULUM COURSES

CUR 510 Creative Activities in Elementary Education. Two sem hours (Formerly CUR 504 Creative Activities in Early Elementary Education)

Relationship of creative activities to the development of fully functioning, integrated individuals in kindergarten and primary grades. Planning for and im-

plementing creative activities in play, dramatization, music and art.

CUR 512 Enriching the Elementary Classroom Program. Two sem hours (Formerly CUR 567 Enriching the Early Elementary Classroom Program)

Types of organization of elementary classroom activities and programs in relation to behavioral goals. Uses of direct and vicarious experiences, materials and instructional techniques to develop and extend vocabulary, language, experience backgrounds, self-concepts and social learnings. Particularly beneficial for teachers working with educationally disadvantaged.

CUR 514 Integrating Consumer and Economic Education in the Elementary School. Two sem hours

Elementary teachers will become familiar with and use effective strategies and materials for integrating consumer and economics education concepts, skills, attitudes and behaviors into various subject areas.

CUR 520 The Junior High/Middle School Curriculum. Two sem hours (Formerly CUR 523)

History and philosophy of the junior high/middle school: curriculum, provision for individual differences, modern classroom procedures, use of materials and aids of instruction, the activity program and guidance.

CUR 522 Effective Teaching in the Middle School. Four sem hours (Formerly CUR 524)

This course is concerned with helping teachers examine the issues and possibilities of teaching middle school youth. Based on such an examination, each teacher works with other class members and the University professor in developing an effective teaching style within the context of his or her teaching situation.

Prereq: CUR 520 The Junior High/Middle School Curriculum.

CUR 550 Improving Instruction. Two sem hours (Formerly CUR 566)

Identification, validation and use of criteria for appraising and improving teaching and learning, with focus on the classroom; principles underlying techniques of improving instruction.

CUR 551 Integrating the Curriculum Via School Camping. Two sem hours (Formerly CUR 563)

A study of the history and purpose of school camping in Michigan. Students will develop their personal courses of study involving the integration of all curriculum areas as well as the skills to organize an outdoor education class for their personal classroom use. Students will be required to participate in a minimum of one weekend camping experience together as a class. Students will be expected to pay the actual cost for the weekend camping experience.

CUR 571 Teaching of Social Studies. Two sem hours

Subjects included in social studies at the secondary level, problems related to the presentation of materials, planning of units and types of class activities. *Not open to students who have credit in HIS 481 The Teaching of Social Studies and GEO 348 Teaching Social Studies in Elementary Schools.*

CUR 572 Education of the Gifted Child. Two sem hours (Formerly SGN 561)

The identification of gifted students: the use of test results, psychological services and cumulative records. Curricula stressing enrichment and acceleration and the use of community resources; of special value to classroom teachers.

CUR 600 Early Childhood Education. Two sem hours (formerly CUR 587)

Educational implications of historical, developmental and curricular research; continuity in program development; foundations and techniques for establishing cooperative home-community-school relationships for the improvement of the education of young children.

CUR 602 Teaching in the Preschool. Two sem hours (Formerly CUR 584)

Overview of programs for preschool children infancy through age five including program goals, selection of curriculum content, materials and teaching techniques suitable for working with prekindergarten children. Requirements and recommendations for personnel, physical facilities and equipment for nursery schools and day care.

CUR 604 Planning and Implementing Prekindergarten Programs. Two sem hours (Formerly CUR 585)

In depth study of planning and implementing prekindergarten programs including determination of need, legal requirements, selection of equipment and personnel, budgeting, record keeping and implementation of program goals.

Prereq: CUR 602 Teaching in the Preschool or instructor's permission.

CUR 605 Trends and Issues in Kindergarten Education. Two sem hours (Formerly CUR 586/606)

Important trends and issues affecting the education of kindergarten children.

CUR 616 Curriculum—Elementary School. Two sem hours (Formerly CUR 541)

Fundamentals of curriculum development: selected types, several basic determinants, some approaches to organization and the concept of change. Emphasis is placed on the role of the teacher and on the problem-census approach to defining problems.

CUR 617 Elementary School Children and Social Studies. Two sem hours (Formerly CUR 532)

Current issues and controversies in the teaching of social studies in the elementary school.

CUR 630 Curriculum—Secondary School. Two sem hours (Formerly CUR 542)

The development and present status of the secondary curriculum, principles of curriculum revision and some factors involved in curriculum changes. Students are encouraged to concentrate on curriculum problems present in their school system.

CUR 632 Individualizing Instruction in the Secondary School. Two sem hours (Formerly CUR 568)

A course designed to help secondary teachers meet individual differences among their students by using a variety of resources, pupil involvement, thematic approaches and other teaching strategies.

CUR 655 Curriculum Foundations. Two sem hours (Formerly CUR 540)

Curriculum content and patterns of

schools in the United States. Historical and theoretical authority for the curriculum; criteria for the choice of content.

CUR 657 The Open Classroom. Four sem hours (Formerly CUR 564)

The open classroom tied to a demonstration center, planning an integrated day based upon learning centers and pupil self-direction, the child-centered, experience-based curriculum. Designed to help free teachers to become more innovative, open, creative and humane in curriculum development.

CUR 659 K-12 Curriculum. Four sem hours (Formerly CUR 545)

An integrated study of curriculum from preschool through high school with emphasis on form, priorities and impact. Historical and contemporary study of school programs from a social-humanitarian vantage point.

Middle School Curriculum, CUR 630 Curriculum-Secondary School or CUR 659 K-12 Curriculum and 20 hours of graduate credit.

CUR 694 Seminar: Open Education. Two sem hours (Formerly CUR 596)

Prereq: CUR 657 The Open Classroom or CUR 658 The Community-Centered Classroom and 20 hours of graduate credit.

CUR 694 Seminar: Early Childhood Education. Two sem hours (formerly CUR 596)

Prereq: 20 hours of graduate credit and one of the following courses: CUR 600 Early Childhood Education, CUR 602 Teaching in the Preschool, CUR 604 Planning and Implementing Prekindergarten Programs or CUR 605 Trends and Issues in Kindergarten Education.

CUR 679, 680, 681 Special Topics. One, two and three sem hours

CUR 682, 683, 684, 685 Workshops. One, two, three and four sem hours

CUR 683 Workshops in Selected Areas. Two sem hours (Formerly CUR 595)

Please examine the current time schedule for specific workshop topics. Among those which have been offered in the past:

**The Adolescent in American Society.
The Curriculum and Racism.
Early American Life—Colonial Williamsburg.
Individualizing Instruction.
Kindergarten Materials.**

CUR 686, 687, 688 Internship in Teacher Education. One, two and three sem hours

Provides a supervised opportunity for students to apply knowledge and skills gained through classroom activity in a "real world" working environment. Internship sites and supervisory arrangements must be approved by program adviser prior to registration.
Prereq: Departmental permission.

CUR 694 Seminar: Secondary Curriculum. Two sem hours (Formerly CUR 596)

Prereq: CUR 655 Curriculum Foundations, CUR 520 The Junior High/

READING COURSES

RDG 518 Developmental Reading—Elementary. Two sem hours (Formerly RDG 501/618)

Objectives, approaches, materials and techniques for reading in the elementary school classroom. Factors influencing development, fundamental skills, assessing and providing for individual strengths and needs. *Not open to reading majors.*

RDG 519 Programs in Language Arts. Two sem hours (Formerly RDG 573/619)

Curricular objectives and their implementation through listening, speaking, handwriting, spelling and creative, narrative and expository writing, evaluative procedures and some consideration of corrective techniques.

RDG 530 Developmental Reading—Secondary. Two sem hours (Formerly RDG 502/635)

Curricular objectives and their implementation through recommended activities, methods and materials; functional programs for disabled readers.

RDG 544 Fundamentals of Reading for Teachers of Adults. Two sem hours

Characteristics of the adult learner and teaching implications; organization and teaching of vocabulary development, comprehension, work recognition, study skills and reading-related skills for adults; emphasis on reading relevancy for adults.

RDG 545 Advanced Concepts in Reading for Teachers of Adults. Two sem hours

This course is designed for the adult educator who has a basic background in reading consisting of experience in course work in teaching reading to the adult illiterate. The emphasis will be on the diagnosis and remediation of reading problems presented in this population.

RDG 554 Reading Problems of Learners with Special Needs. Two sem hours (Formerly RDG 560)

Methods, materials and assessment techniques found effective in teaching reading to learners with special needs: culturally different, mainstreamed, reluctant and gifted learners.

OTHER COURSES

The following upper division undergraduate courses may also be elected for graduate credit. Consult undergraduate catalog for course descriptions and prerequisites:

CUR 419 Instructor's Course in Driver Education (3)

CUR 420 Advanced Instructor's Course in Driver Education (3)

CUR 421 Seminar in Driver Education (2)

Prereq: A basic course in the teaching of reading.

RDG 563 Foundations of Reading Development. Four sem hours (Formerly RDG 500/663)

A theory course emphasizing psychological, sociological and linguistic foundations of reading development; issues and research in reading instruction; a survey of current methods and materials in reading with a focus on goals, reading skills and evaluation techniques. *This is the first course in the reading concentration area.*

Prereq: An undergraduate course in the teaching of reading or language arts.

RDG 593 Microcomputer Applications in Reading Instruction. Two sem hours

Participants will evaluate software for reading/language arts, including programs for drill and practice, tutorials, simulations, diagnosis and prescription, word processing and management. Suggestions for developing units about computers in society will be included.

Prereq: A basic course in reading instruction and EDT 507 Introduction to the Microcomputer or permission of the instructor.

RDG 636 Content Reading in the Secondary School. Three sem hours

This course is directed to content area classroom teachers. Emphasis will be placed on specific reading and study strategies needed to understand course content in English, social studies, science, math, etc.

Prereq: RDG 530 Developmental Reading—Secondary.

RDG 664 The Nature of Common Reading Problems. Two sem hours (Formerly RDG 582)

Problems of under-achievement: weaknesses and deficiencies in attitudes, comprehension, work recognition and facility and flexibility in silent and oral reading, physical, psychological, environmental and educational factors. *Not open to reading majors.*

Prereq: A basic course in the teaching of reading.

RDG 665 Psycholinguistics and Reading. Two sem hours

An analysis of the reading process from a psycholinguistic perspective. Emphasis

includes selected readings in language development, learning and comprehension as each relates to reading.

Prereq: RDG 563 Foundations of Reading Development.

RDG 668 Diagnosis and Remediation of Reading Problems. Four sem hours

A survey of formal and informal procedures used in identifying, evaluating and remediating reading problems in a classroom or clinical setting. Preparation of case studies and recommendations to teachers and parents; examination of current group and individual reading tests.

Prereq: RDG 563 Foundations of Reading Development.

RDG 670 Materials and Activities in Reading and Language Arts Instruction. Four sem hours

A practical course designed for teachers who see the need for creating and constructing aids for pupil learning in reading classes. This course combines the how and why of constructed materials by drawing on learning theory, child development and creativity principles.

RDG 679, 680, 681 Special Topics. One, two and three sem hours

RDG 682, 683, 684, 685 Workshops. One, two, three and four sem hours

RDG 683 Workshop in Selected Areas. Two sem hours (Formerly RDG 595)

Please examine the current time schedule for specific workshop topics. Among those offered in the past:

Providing for Individual Differences in Reading.

RDG 689 Practicum in Reading. Four sem hours (Formerly RDG 594)

Opportunities to work with community children demonstrating reading difficulties. Under supervision, students will engage in the diagnosis, analysis and treatment of various reading disabilities, maintaining a professional relationship with their clients, their clients' families and associated schools or agencies. Ongoing study of current procedures in the analysis of reading performance critical to systematic diagnosis and prescription.

Prereq: RDG 563 Foundations of

Reading Development, RDG 668 Diagnosis and Remediation of Reading Problems and departmental permission.

RDG 694 Seminar: Current Issues in Reading. Two sem hours (Formerly RDG 596)

The seminar is a culminating course in the graduate reading concentration. Current trends in reading research, critical examination of selected research studies and investigations, self-evaluations of professional needs and interests in reading are included.

Prereq: Eight hours of graduate credit in reading. It is highly desirable to have completed EDP 677 Research Techniques.

RDG 697, 698, 699 Independent Studies. One, two and three sem hours (Formerly CUR/RDG 597, 598, 599)

An intensive study of a problem or group of problems. The completed study must give evidence of the student's ability to select a problem, set it up and pursue it to satisfactory completion. *Must be done with approval of a full-time member of the staff.*

EDUCATIONAL MEDIA

At the present time there are no graduate degrees in either audio-visual or library science. The offerings in educational media provide some course work leading to permanent certification and electives in almost every master's degree program in education.

Courses in educational media are designed to aid administrators, supervisors, directors, technicians and teachers in all aspects of media and educational technology. There are specific courses in television, motion picture projections, production of materials and resource material classification and utilization. If interested in courses in educational media, please check with your adviser.

EDUCATIONAL MEDIA COURSES

EDM 552 Audio-Visual Instruction. Two sem hours (Formerly EDM 512)

A survey course for teachers and administrators in which the nature and effective use of teaching materials are

considered and fully demonstrated. Provision is made for actual use of materials and equipment. *Not open to students who have credit in EDM 344 Audio-Visual Methods in Teaching.*

EDM 553 Radio and TV in the Classroom. Two sem hours (Formerly EDM 536)

Study and practice in the utilization and evaluation of instructional, educational, and enrichment radio and television programs. Familiarization with broadcast methods and facilities. Includes utilization guidebooks and sources of materials.

EDM 662 TV in Education. Two sem hours (Formerly EDM 524)

Extent and nature of experimentation in instruction by radio and television; current philosophy and attitudes toward teaching by radio and television.

EDM 679, 680, 681 Special Topics. One, two and three sem hours

EDM 682, 683, 684, 685 Workshops in Selected Areas. One, two, three and four sem hours (Formerly EDM 595)

Please examine the current time schedule for specific workshop topics. Among those which have been offered in the past:

EDM 683 Workshop in Production of Instructional Materials. Two sem hours (Formerly EDM 595)

Basic techniques in the production of a variety of teaching materials; lettering, mounting, and color application to flat pictures and graphics; projected materials of various sizes; overhead projects; display boards of all types.
Prereq: EDM 344 Audio-Visual Methods in Teaching or EDM 552 Audio-Visual Instruction.

EDM 683 Workshop in Television Utilization. Two sem hours (Formerly EDM 595)

For teachers; advanced problems in the use of television in the classroom.

EDM 693, 694, 695, 696 Seminars in Selected Areas. One, two, three and four sem hours

Please examine the current time schedule for specific seminar topics.

EDM 694 Seminar: History and Appreciation of Motion Pictures and Photography. Two sem hours (Formerly EDM 596)

A course designed to give the history of the photographic medium with the emphasis on important films and photographs and the people who created them.

Prereq: EDM 344 Audio-Visual Methods in Teaching, EDM 552 Audio-Visual Instruction or departmental permission.

EDM 694 Seminar: Instructional Materials. Two sem hours (Formerly EDM 596)

A course designed to assist the individual student in detailed study of specific problems or topics in utilization, production, selection, or administration of instructional materials. Visits to actual service centers, use of resource persons, etc. will be employed. A sharing of solutions and problems will be used in a seminar setting during the course.

Prereq: EDM 344 Audio-Visual Methods in Teaching, EDM 552 Audio-Visual Instruction or departmental permission.

EDM 697, 698, 699 Independent Studies. One, two and three sem hours

Prereq: Departmental permission.

OTHER COURSES

The following upper division undergraduate courses also may be elected for graduate credit. Consult undergraduate catalog for course descriptions and prerequisites.

EDM 406 Storytelling (2)

EDM 414 Literature for Young Adults (3)

EDUCATIONAL PSYCHOLOGY GRADUATE PROGRAM

The graduate program in educational psychology offers three areas of concentration: development and personality, research and measurement, and educational technology.

Students who select the development and personality concentration will become familiar with:

1. theories, research and issues regarding the growth, development and learning of children, adolescents and adults and the application of this

knowledge to classroom practice and everyday living;

2. theories, conditions and practices which promote mental, emotional and social well-being in the home, school and other social settings;
3. the body of knowledge and skills in their chosen areas of personal interest such as techniques for modifying behavior, the role of play in development, recognition and facilitation of the creative process and identification of exceptional children and the use of appropriate classroom methodology.

Students who select the research and measurement concentration will become familiar with:

1. parametric and non-parametric statistical techniques and the application of these tests to the verification of hypotheses;
2. methods of conducting educational research which include problem formulation, review of related research, research design, measurement procedures, data analysis and interpretations;
3. the field of data processing, the use of computers and other technology in instruction.

Students who select the educational technology concentration will be able to:

1. help educational institutions integrate technology, especially microcomputers into their instructional programs;
2. teach the operation and various uses of microcomputers in instruction, data based management and analysis;
3. act as a consultant to other educators in the area of computer applications and literacy.

In addition to the above, this program provides a foundation for the pursuit of advanced degrees in educational psychology or allied fields.

Admission to the Program

Generally, students entering this program possess the teaching certificate. However, those with vocational objectives clearly of an educational nature but not centered in a public school setting may request that teacher certification be waived.

The procedure for application for this program is as follows:

1. complete the departmental application form obtainable from the secretary of the Department of Teacher Education and return it to the department;
2. submit transcripts of all undergraduate and graduate work to the Graduate School and complete Graduate School application form;
3. submit Miller Analogies Test score to the Graduate School if undergraduate GPA is below 2.75. Arrangements for the MAT may be made with the secretary of the Teacher Education Department.

Once this information has been received, it is reviewed by the coordinator of advising and appropriate faculty members. The undergraduate grade point average (a 2.75 average on a 4.0 scale is required), satisfactory performance on the MAT (a minimum score of 40), experience in related fields and personal recommendations will be considered when determining readiness for graduate study in this degree program.

Program Requirements

Each program of study must indicate which area of concentration (development and personality, research and

measurement, or educational technology) is being pursued.

The core courses (10 semester hours) are the same for both the development and personality concentration and the research and measurement concentration. There is a modest difference in the core courses in the educational technology track. These courses should be elected at the beginning of the program. The Seminar in Educational Psychology should come toward the end of the program.

The supportive courses may include independent study and thesis credits. However, students seeking to gain admission to such must file application (available in the office of the Department of Teacher Education).

All students must complete a minimum of six semester hours of cognate or elective work.

Degree Requirements

Candidates for the master's degree in educational psychology must satisfactorily complete all work of the program of study, including the following:

1. a minimum of 30 semester hours of graduate credit applicable to the program;
2. a "B" average for all work applicable to the degree;
3. the recommendations of the adviser in educational psychology and the Graduate School;
4. all other requirements for a master's degree adopted by the Graduate School of Eastern Michigan University.

Advising

The coordinator of advising is responsible for the admission and advising assignment of graduate students in the program. When a student is granted admission to the program, an adviser is immediately assigned.

The responsibilities of the adviser include:

1. assisting the student in the development of a program of study. This will include the selection of a concentration area and the choice of appropriate required and elective courses;
2. determining the applicability of transfer credits to the student's program of study;

3. conferring with the advisee concerning the nature of academic progress;
4. filing copies of the advisee's program of study with the Graduate School Office, the chairman of the Graduate Instruction Committee in educational psychology and the adviser.

Upon admission to the program, the student is expected to assume the following responsibilities:

1. consulting with an adviser in the Department of Teacher Education *before registering for the first session or semester in the degree program*;
2. preparing a program of study with the assistance and approval of the adviser;
3. obtaining permission of the adviser *before* making substitutions or altering the program of study which has been previously approved;
4. applying for graduation. Forms are available in the Graduate School Office.

EDUCATIONAL PSYCHOLOGY COURSES

EDP 501 Psychology of Adolescence. Two sem hours

Study of the physical, cognitive, affective and social behavior and development of the adolescent; his relation to family, peer group, school and society; and youth here and abroad.

EDP 502 Basic Concepts in Educational Psychology. Two sem hours

Review and critical assessment of major issues in the areas of human growth and development, learning and technology, personality and mental hygiene and measurement and evaluation.

EDP 504 Identification of the Gifted. Two sem hours

The study of the nature of giftedness, the characteristics and needs of gifted students and the issues involved in the identification and development of the gifted.

EDP 509 Problems in Child Psychology. Two sem hours

Deals theoretically and practically with the many concerns felt by teachers and parents in regard to the various problems children face. Includes home, family and school influences as creators of problems and approaches for dealing with these problems.

EDP 535 Measurement and Evaluation of Adult Learners. Two sem hours

Designed to assist teachers of adults to become familiar with the construction and uses of teacher-made and selected standardized tests suitable for placement, diagnosis, individualizing instruction and evaluating student achievement. Treats measurement issues unique to adult learners.

Prereq: Admission to a degree program for teachers of adults, or departmental permission.

EDP 561 Questionnaire Design and Analysis. Two sem hours

Survey Research: questionnaire design and construction, sampling techniques, data collection and analysis and reporting results of student-generated questionnaire data. *Background in descriptive statistics and research techniques would be helpful.*

EDP 590, 591, 592 Special Topics. One, two and three sem hours

The content will include current relevant topics and will vary from term to term. Special topics not included in the usual course offerings but within the domain of educational psychology will be considered. See appropriate schedule.

EDP 600 Human Development. Two sem hours (Formerly EDP 500)

The study of social, emotional, physical and mental growth; processes and developmental stages throughout the life cycle and their implications for learning and teaching. Students are expected to pursue an in-depth analysis of research, theory and issues in the field commensurate with the experiential background which they bring to the course.

EDP 602 Psychology of the Adult Learner. Two sem hours

The course focuses on characteristics of the adult learner, adult learning styles, understanding learning theories, information processing and principles of learning and motivation. Participants will discover their own strategies of learning, motivation and decision-making, and skills in creating rapport with adult learners. Emphasis will be on the application of learning theory concepts and teaching skills to the participant's instructional setting.

Prereq: Admission to a degree program for teachers of adults, or departmental permission.

EDP 603 Principles of Classroom Learning. Two sem hours (Formerly EDP 503)

Major principles of learning are examined for their applications in a classroom setting. Recent contributions are studied and the value of learning theories for the teacher is discussed.

Prereq: At least one course in human growth and development or psychology.

EDP 604 Essentials of Programmed Instruction. Three sem hours (Formerly EDP 504)

Principles of programmed instruction are discussed and students examine programs and evaluate them. Students construct short programs in their areas of interest and revise and evaluate them.

This is not a course in computer programming.

Prereq: At least one course in educational psychology, human growth and development or psychology.

EDP 605 Mental Hygiene. Two sem hours (Formerly EDP 505)

A study of the conditions and practices which promote mental, emotional and social well-being. Concepts are explored in terms of restoration, preservation and elevation of mental health goals. The course emphasizes introspection and self-awareness, techniques and skills relevant to interpersonal relationships and the application of principles and concepts to home, school and other social settings.

EDP 606, 607, 608 Colloquium. One, two and three sem hours

Academic seminars centered upon a broad field of study involving several different lecturers from within and outside of the department. See appropriate schedule for announcement.

EDP 610 Personality Theories for Educators. Two sem hours (Formerly EDP 510)

A study of cognitive, psychoanalytic and social learning personality theories primarily for graduate students in educational psychology. The focus of the course will be on implementation of these theoretical approaches for problems in the classroom.

Prereq: EDP 600 Human Development or equivalent or departmental permission.

EDP 611 Piaget for Educators. Two sem hours (Formerly EDP 511)

A systematic analysis of Piagetian research and theories. Applications to curriculum from pre-school through secondary will be made. Students will conduct interviews and tests with children and adolescents and make recommendations for their teaching. Students also will evaluate educational materials and teaching strategies.

Prereq: EDP 600 Human Development or equivalent.

EDP 612 Behavior Modification Techniques for School Personnel. Two sem hours (Formerly EDP 512)

This course is designed for school personnel who are desirous of developing skills in the use of behavior modification in their settings. Students will learn and apply the principles of behavior modification to projects conducted in their institutions. Students who enroll in this course currently should be teaching or employed in an instructional setting.

Prereq: Current employment in an instructional setting or departmental permission.

EDP 614 Psychology of Creativity for Educators. Two sem hours (Formerly EDP 514)

A study of the various aspects of creativity: the person, the environment, the process, with emphasis on their implications for teaching. The course also will focus on teacher procedures and methods for facilitating student creative behavior in the classroom.

Prereq: EDP 600 Human Development or equivalent or departmental permission.

EDP 618 Play and Development. Two sem hours (Formerly EDP 518)

The phenomena of play for all ages and their relationship to developmental processes. Definitions, viewpoints, history and theories of play and play movements. Students will conduct interviews and observations with children, adolescents and adults.

Prereq: EDP 600 Human Development or equivalent.

EDP 619 Stress Management for Educators. Two sem hours

Description and analysis of the factors contributing to school personnel stress

in the work environment. Utilizes relevant psychological theory to explain the basic theme of stress as an adjustment to one's environment. Specific techniques for reducing stress in school personnel and students are reviewed.
Credit/No Credit.

EDP 621 Statistical Applications in Educational Research. Two sem hours (Formerly EDP 621 Statistics I: Descriptive Statistics)

Emphasizes the role of statistics in hypothesis testing; statistical applications in visually presenting and summarizing data; computation of central tendency, variability, relationship and prediction indices; and interpretation of results.

EDP 631 Measurement and Evaluation. Two sem hours (Formerly EDP 531)

A study of the construction and use of teacher-made tests, rating scales, questionnaires, check lists and similar measures. Also includes the administration of standardized tests and utilization of their results.

EDP 633 Systematic Observation, Checklists and Rating Scales. Two sem hours (Formerly EDP 533)

An introduction to the techniques and tools of systematic observation: uses and limitations of checklists and rating scales in educational settings, methods of estimating and improving the reliability and validity of such techniques and tools.

Prereq: EDP 631 Measurement and Evaluation and/or statistics or departmental permission.

EDP 651 Statistics II: Inferential Statistics. Two sem hours (Formerly EDP 551)

Inferential statistics, both parametric and non-parametric; theory of hypothesis testing.

Prereq: EDP 621 Statistical Applications in Educational Research or equivalent.

EDP 652 Statistics III: Analysis of Variance. Two sem hours (Formerly EDP 631)

Involves statistical principles in experimental design through the study of single and multi-factor analyses of variance.

Prereq: EDP 621 Statistical Applications in Educational Research and EDP 651 Statistics II: Inferential Statistics or departmental permission.

EDP 674 Research Methods and Interpretation. Three sem hours

The understanding and application of research concepts, designs and procedures; organization, coding and calculation of descriptive statistics; use of statistical packages; critical evaluation of educational research; interpretation of results.

Prereq: EDT 507 Introduction to the Microcomputer or permission of instructor.

EDP 677 Research Techniques. Two sem hours (Formerly EDP 592)

Basic concepts, procedures and language of research; facets of research, i.e., problem formulation, research design, data collection, data analysis and interpretation. Critical appraisal of published research.

EDP 697, 698, and 699 Independent Study. One, two and three sem hours (Formerly EDP 597, 598, 599)

Prereq: Permission of the graduate adviser.

EDUCATIONAL TECHNOLOGY COURSES

EDT 507 Introduction to the Microcomputer. One sem hour

Introduces novices to the operation of the Apple II, II+, and IIfx microcomputers. It is a suggested prerequisite to introductory courses in microcomputer applications or programming.
Credit/No Credit.

EDT 514 Logo for Educators I. Two sem hours

A first course in a powerful computer language and teaching philosophy for all ages. Major foci include activities with graphics, activities with words and lists, and using Logo with students.
Prereq: Competency in using a computer.

EDT 515 BASIC Programming for Educators I. Two sem hours

Students will be able to draw logical flowcharts; write, test and debug programs. Students also will learn to use subroutines, subscripted variables and how to convert BASIC programs from one microcomputer to another and understand the difference between the BASIC-plus and standard BASIC.

Prereq: EDT 507 Introduction to the Microcomputer or permission of instructor.

EDT 517 Educational Applications of Computers I. Two sem hours (Formerly EDP 617 Computer Applications in Education)

Develops computer literacy for educators. Includes computer terminology, the role of programming and the use of computers in education including some hands-on experience with instructional and record keeping applications. Requires no prior knowledge of computers or computing.

Prereq: EDT 507 Introduction to the Microcomputer or permission of instructor.

EDT 615 BASIC Programming for Educators II. Two sem hours

Students write interactive instructional computer programs using arrays (string and numeric), subroutines, mathematical functions and machine codes (POKE, PEEK, CALL). Students create and retrieve data files, use high resolution graphics and develops simulations.

Prereq: EDT 515 BASIC Programming for Educators I.

EDT 616 Technology of Instruction. Two sem hours (Formerly EDP 616)

Classroom management of learning and instruction; the tools of instruction. Educational technology is more than the study of machines used in education.

Prereq: At least one course in educational psychology, or human growth and development or psychology.

EDT 617 Educational Applications of Computers II. Two sem hours

A hands-on experience with educational application of computers. Students will learn how to use word processing software to prepare tests, handouts, letters and papers; spread-sheet programs to maintain student gradebooks and prepare budgets; authoring systems to prepare computer assisted instructional materials; data-base managers to maintain student and school records; and information utilities as an information and communication media.

Prereq: EDT 507 Introduction to the Microcomputer, EDT 517 Educational Applications of Computers I, or permission of the instructor.

EDT 676 Using Computers for Data Analysis. Two sem hours

Use of statistical packages available for micro- and main-frame computers to organize, code, create, edit, manage, store and process data. Compare statistical packages. Write research reports interpreting educational data results.

Prereq: EDT 507 Introduction to the Microcomputer, EDP 621 Statistical Applications in Educational Research and EDP 674 Research Methods and Interpretation or EDP 677 Research Techniques, or permission of instructor.

OTHER COURSES

The following upper division undergraduate courses may be elected for graduate credit. Consult undergraduate catalog descriptions and prerequisites.

EDP 402 Learning in the Later Years (3)

SPECIALIST IN SCHOOL PSYCHOLOGY

The Department of Teacher Education is cooperating with the Departments of Psychology and Special Education in a program designed to prepare school psychologists. A complete description of this program is available in the Psychology Department section of this catalog.

TENTATIVE SCHEDULE

Course	Winter	Spring	Summer	Fall
EDP 501	X	X	X	X
EDP 502				
EDP 504				X
EDP 509	X	X	X	X
EDP 561	X			
EDP 600	X	X	X	X
EDP 603				
EDP 604				
EDP 605	X	X	X	X
EDP 610				
EDP 611				X
EDP 612	X			
EDP 614	X			
EDP 615				
EDP 616				
EDP 617				
EDP 618	X			
EDP 621	X	X	X	X
EDP 631	X	X	X	X
EDP 633				

EDP 651	X			
EDP 652				
EDP 677	X	X	X	X
EDP 678				
EDP 694	X			X

The above schedule is subject to modification because of personnel and enrollment changes. Consult the official class schedule for each term. Courses are offered each term through Continuing Education and supplement to the above schedule.

SOCIAL FOUNDATIONS OF EDUCATION GRADUATE PROGRAM

This program has been designed to complement, extend and enrich the education a teacher receives at the undergraduate level. While in a strict sense this program does not prepare a student for a specific vocational position, study in the social foundations of education assists the person to become more aware of the complex dimensions of traditional and emergent relationships of formal and informal educational institutions in the American cultural context. With attention to all subjects and grades from pre-school through college, the program offers opportunities for professional educators to build better relationships with others in the school setting and to enhance the knowledge of and sensitivity to the community and society in which they live and work. Students who successfully complete the program of graduate study in social foundations receive the Master of Arts degree.

Program Description and Degree Requirements

The master's degree program, which requires earning a minimum of 30 semester hours credit, is so organized as to facilitate the development of an individual program for each major student which provides for concentration in one of five social foundations sub-fields and opportunity for relating such specialization to the integrative, interdisciplinary nature of the social foundations. Of the total of 30 hours, at least 16 hours must be in social foundations courses, two (2) hours in a curriculum foundations course, and a minimum of zero (0) to six (6) hours in cognate courses outside social foundations ap-

proved by the student's adviser.

When students have completed at least 20 hours, they will enroll in SFD 693, 694, 695 or 696 Advanced Seminar. During the seminar, or following it, the student and adviser will consult to determine what additional capstone experiences are desirable. It is anticipated that the student's experience in the conduct of an interdisciplinary study of substance and depth (in the seminar) will provide the substantive basis for deciding upon similar further studies.

The remaining hours will be devoted to additional cognates or electives and further SFD course work, seminars, independent study or thesis which the student and adviser determine to be particularly integrative for that individual student's program.

Admission Requirements

Admission to the program will require that the applicant hold a baccalaureate degree from an accredited institution and meet the degree admission requirements of the Graduate School. This requires a 2.50 grade point average or alternative admission as specified on page 13 of this catalog. For regular admission, the applicant must hold a valid teaching certificate *or* have successfully completed an education major or minor or equivalent. Further, the applicant must have completed 15 hours in the social sciences. This includes courses defined as social sciences in the EMU Undergraduate Catalog plus courses in philosophy and religion. For those teacher applicants who do not meet the requirements for regular admission, conditional admission (including a clear specification of actions necessary for regular admission status) may be granted. It is anticipated that, in a few instances, students who are not and do not intend to become teachers may wish to seek the master's degree in social foundations. In addition, some students may choose to combine study in the social foundations of education with completion of initial certification as teachers. When such intentions are based on clear understandings of the program, the teaching certificate requirement may be waived.

Students who wish to apply for admission to the program leading to the degree of Master of Arts in the social foundations of education may make ap-

plication in the Graduate School Office, 116 Pierce Hall. When the application has been processed by the Graduate School, the student is contacted by the coordinator of advising to arrange for an adviser and to develop a schedule for completion of degree requirements. Recommendations concerning admission and the proposed course of study are reviewed and acted upon by the full faculty in social foundations.
NOTE: The social foundations courses are under review and changes may be expected during the life of this catalog. Students are urged to consult with their advisers in the social foundations area.

SOCIAL FOUNDATIONS COURSES

SFD 500 Social Foundations of Education: An Introduction. Two sem hours

An overview presented by varied staff members of the major areas of social foundations of education: educational sociology, educational anthropology, educational philosophy, educational history and comparative education.

SFD 540, 541 542 Field Studies in Comparative Education. One, two and three sem hours

A study of selected aspects of education and the environing society by visits to and periods of residence in one or more other nations. Previously studied: East Africa, England, India, the Philippines, Scandinavia. Summers only typically.

SFD 550 Philosophy of Education. Two sem hours

Philosophical study of educational questions, the nature of being human, what should be learned, who is educable, the ends of education, personal meaning of philosophical questing.
Prereq: SFD 500 Social Foundations of Education: An Introduction for majors; course in philosophy or religion for non-majors.

SFD 560 Anthropology of Education. Two sem hours

An overview of the learning process in human societies addressing universal problems of motivation, selectivity, thinking-remembering, forgetting, language and thought, value orientation and cultural sets.
Prereq: SFD 500 Social Foundations of Education: An Introduction for majors;

course in sociology or anthropology for non-majors.

SFD 572 History of American Education. Two sem hours

Historical precedents of present educational circumstances; the developmental background of modern school crises; a study of problems and answers, successes and failures in America's schools.
Prereq: SFD 500 Social Foundations in Education: An Introduction for majors; course in American history for majors and non-majors.

SFD 580 Sociology of Education. Two sem hours

Examined here are selected points of view and empirical studies on social organization, social change, policy-making, power and authority structures, social class system and social movements in relation to the school as an institution.
Prereq: SFD 500 Social Foundations of Education: An Introduction for majors; course in sociology for majors and non-majors.

SFD 601 History of Educational Thought. Two sem hours (Formerly SFD 501)

A study of the history of educational thought as a means of understanding the evolutionary process by which modern concepts of education developed.
Prereq: SFD 500 Social Foundations of Education: An Introduction or an undergraduate course in Western history or philosophy.

SFD 602 Progressivism in American Education. Two sem hours (Formerly SFD 502)

The genesis and development of pragmatism; the special contributions of Peirce, James, Mead and Dewey; the educational theories and practices of the Progressivists: Bode, Kilpatrick, Counts; present thought and new influences.
Prereq: SFD 500 Social Foundations of Education: An Introduction or an undergraduate course in Western history or philosophy.

SFD 603 Groups in Schools. Two sem hours (Formerly SFD 503)

Examines schools and classrooms as social organizations; considers dynamics of interpersonal behavior in large and small settings; examines such

phenomena as roles, statuses, communications and patterns of influence. *Prereq: SFD 580 Sociology of Education for majors; for non-majors, SFD 580 Sociology of Education or one course in psychology or sociology.*

SFD 604 Delinquency and Schools. Two sem hours (Formerly SFD 504)

Nature, meaning, causal factors and conditions of delinquency in home, school and community; problems in personality and behavior; the juvenile courts; delinquency prevention and control programs. Opportunity to study problems of particular individual interests. *Not open to students who have credit in SOC 354 Juvenile Delinquency. Prereq: SFD 580 Sociology of Education for majors; for non-majors, SFD 580 Sociology of Education or one course in psychology or sociology.*

SFD 624 Education for What and Whom: A World View. Two sem hours (Formerly SFD 524)

Why should people be educated? Who should be educated? What should this education accomplish? What form should it take? What methods should we use? These questions, viewed in world perspective, may suggest some workable answers. A course in comparative education.

SFD 625 Power and Influence in Education: A Cross-Cultural View. Two sem hours (Formerly SFD 525)

Designed to increase participation and effectiveness of educators in the decision-making process, the course examines cross-culturally the structure and dynamics of power in education, emergence of pressure groups and integrative mechanisms to minimize conflicts between power groups.

SFD 626 Schools, Poverty, Population: Selected Problems in Comparative Education. Two sem hours (Formerly SFD 526)

Education in various societies; e.g., agrarian, capitalist, totalitarian, preliterate, etc., is studied to discern how policies and practices of schools affect and are affected by the problems of poverty and population, e.g., fertility control, world food problems, education as capital, economic development as educational purpose, etc.

SFD 627 Social Problems in the Schools: International Perspectives. Two sem hours (Formerly SFD 527)

This course in comparative education addresses attention especially to the interactions of school and selected societies throughout the world and the problems of delinquency, mental health, multi-culturalism, racism and sexism and institutional change.

SFD 651 Analysis of Educational Concepts. Two sem hours (Formerly SFD 551)

Philosophical analysis of concepts central to the processes of education; learning by doing, teaching as telling and the curriculum as content, knowing "that" and knowing "how." *Prereq: SFD 500 Social Foundations of Education: An Introduction for majors; course in philosophy or religion for non-majors.*

SFD 652 Pragmatism and Education. Two sem hours (Formerly SFD 552)

Consideration of pragmatists' psychology, sociology, ethics, social philosophy and their influence upon educational psychology and practices. *Prereq: SFD 500 Social Foundations of Education: An Introduction for majors; course in philosophy or religion for non-majors.*

SFD 653 Existentialism and Education. Two sem hours (Formerly SFD 553)

An historical and comparative analysis of the relationship of pragmatism to existentialism; factors which affect theories and practices of American education. *Prereq: SFD 500 Social Foundations of Education: An Introduction for majors; course in philosophy or religion for non-majors.*

SFD 662 Cultural Determinants of Learning. Two sem hours (Formerly SFD 562)

The educational theories and practices in literate and pre-literate societies as illustrative of various theories of cultural dynamics and change which relate to citizens who will be living in the 21st century; the relationship between culturally held values and the learning process. *Prereq: SFD 500 Social Foundations of*

Education: An Introduction for majors; course in sociology or anthropology for non-majors.

SFD 671 Development of European Education. Two sem hours (Formerly SFD 571)

Consideration of ancient traditions as the Graeco-Roman and Hebraic-Christian and such modern forces as nationalism, democracy, science and industrialization in terms of their impact on educational development in selected European countries. Focus is upon organization, philosophy, curriculum, methods of instruction and evaluation. *Prereq: SFD 500 Social Foundations of Education: An Introduction for majors; course in history of Western civilization or history of Europe for non-majors.*

SFD 673 Black Experience and American Education. Two sem hours (Formerly SFD 573)

The role of the Negro in the development of the United States. The course is designed to help teachers to understand the cultural, economic and political contributions of Afro-Americans and to develop materials to be used in their courses at both elementary and secondary schools. *Prereq: SFD 500 Social Foundations of Education: An Introduction for majors; course in American history for others.*

SFD 679, 680, 681 Special Topics in Social Foundations. One, two and three sem hours (Formerly SFD 539)

This number is used for an experimental offering of the department when a course is being given a trial run in a given semester.

SFD 682, 683, 684, 685 Workshop. One, two, three and four sem hours (Formerly SFD 595)

Designed each semester to consider particular themes or issues (e.g., racism and education, human relations in schools) and providing a basic empirical orientation with attention to teaching resources and skills. Student-faculty planning, small group and discussions used extensively. *May be selected more than once. Prereq: SFD 500 Social Foundations of Education: An Introduction for majors; consent of advisers for non-majors.*

SFD 690, 691, 692 Thesis. One, two and three sem hours

Prereq: Departmental permission.

SFD 693, 694, 695, 696 Advanced Seminar. One, two, three and four sem hours (Formerly SFD 696)

An intensive study of selected problems in social foundations of education.

Open to SFD majors only.

Prereq: Twenty (20) hours completed on M.A. program, including SFD 500

Social Foundations of Education: An Introduction and eight hours in area of concentration.

SFD 697, 698, 699 Independent Studies. One, two and three sem hours (Formerly SFD 597, 598, 599)

An intensive study of a problem or group of problems in the field of social foundations of education under the

direction of a University faculty member.

Prereq: Departmental approval.

OTHER COURSES

The following upper division undergraduate courses also may be elected for graduate credit and a course description may be found in the undergraduate catalog.

SFD 402 Sexism and Education (3)

COLLEGE OF HEALTH AND HUMAN SERVICES

DEAN: Elizabeth C. King

DEPARTMENTS

Human, Environmental and
Consumer Resources
Social Work

HUMAN, ENVIRONMENTAL AND CONSUMER RESOURCES:

Robert DelCampo
Acting Department Head
108 Roosevelt Hall
487-1217

R. Elaine Found
Coordinator of Advising
206 Roosevelt Hall
487-2490

Graduate curricula in the department are designed to provide a broad philosophy of the field with in-depth concentration in the subject matter content areas. The interpretation of current research and theory as they apply to the selected professional role is an integral part of each concentration. The professional concentration enhances the student's ability to utilize knowledge and interpersonal skills in contributing to the psychological, physiological, social and economic development of individuals and families.

Concentrations are offered in clothing and textiles, consumer affairs, family and child development, foods and nutrition, housing and interior design; also general home economics.

Program Objectives

The purpose is to:

1. provide a program of advanced study for certified teachers, other education personnel, dietitians and those in consumer affairs, child and family services and business careers such as clothing and textiles, housing, interior design and foods;
2. provide the conceptual understandings, analytical and research skills necessary for those students who plan to proceed to more advanced study or to professional activities that require such knowledge and skills.

MASTER'S PROGRAM CONCENTRATION AREAS

A master's degree may be earned in

any concentration area as specified below.

The student's program of study is planned with a graduate adviser in the Department of Human, Environmental and Consumer Resources.

1. *Concentrations are available in clothing and textiles, consumer affairs, family and child development, foods and nutrition, housing and interior design and general home economics.*
2. Minimum of 30 hours is required for the master's degree.
3. Minimum of 20 hours in a concentration area is required.
4. Minimum of two to 10 hours of cognate courses (outside departmental courses) is required.

General home economics

1. Minimum of 30 hours is required for the master's degree.
2. Minimum of 24 hours in home economics (four to six hours in five major areas of the department) is required.
3. Minimum of two hours of cognate courses outside the department is required (professional skills course).
4. Recommended for the applicant who has a major or minor in general home economics or home economics education, or can meet the prerequisite requirements of courses within the graduate program.

Admission Requirements

An applicant for admission must:

1. meet Graduate School degree admission requirements;
2. have completed the minimum number of hours or prerequisites for the general or concentration program;
3. have a 2.5 undergraduate grade point average*;
4. submit two letters of recommendation and evidence of competency in the program selected if required by the adviser;
5. receive the recommendation of the graduate adviser in the Department of Human, Environmental and Consumer Resources.

* *Applicants who do not meet the 2.5 undergraduate point average may request alternative admission.*

Facilities

The Department of Human, Environmental and Consumer Resources is located in Roosevelt Hall. This facility has well-equipped spacious laboratories and classrooms, demonstration centers, studios, multi-purpose rooms, an equipment laboratory with a special kitchen designed for handicapped persons, animal nutrition laboratory and auditorium. The latest equipment and materials are available for student use. The department maintains an instructional materials center and reading room, with carrels for individualized study purposes. The Child Development Laboratory, which houses a licensed pre-school and parent education program, also is available for observation and participation. Practicum experiences are included in many areas of graduate study with community and state agencies, businesses and hospitals. Cooperative education opportunities are available but credits for these experiences may not be counted as part of the 30 semester hour minimum.

COOPERATIVE PROGRAMS WITH EDUCATIONAL LEADERSHIP AT THE M.A. AND S.P.A. LEVELS

The Department of Leadership and Counseling offers a cooperative program in vocational/technical administra-

tion. The program combines course work in school administration with courses in vocational/technical education (industrial education, business education or home economics). This program is designed for persons seeking a career as either a director or supervisor of industrial vocational education. This program is available at either the master's or specialist's level. Interested persons should contact the department head in Leadership and Counseling.

GRADUATE COURSES

HEC 504 History of Textiles. Two sem hours

Study of textiles from ancient times to 20th century; fibers, yarns, fabric construction, dyes, finishes, design of textiles from various world regions; emphasis on the development of American textiles.

HEC 506 Social and Psychological Aspects of Housing. Two sem hours (Formerly HEC 505)

Concerns for adequate family housing with an evaluation of physical, social and psychological aspects, including analysis of local, state and federal legislation.

Prereq: HEC 269 Housing for Consumers.

HEC 507 Consumer and Economic Trends in Housing. Two sem hours

A survey of consumer and economic trends in housing. Attention given to housing alternatives, tenure practices, conservation issues and related governmental policies.

Prereq: HEC 269 Housing for Consumers.

HEC 508 Foods in Cultures of the World. Two sem hours (Formerly HEC 506)

An interdisciplinary approach to the study of cultures and food habits; the influence of attitudes and values in food selection.

HEC 509 Nutrition Problems of Low-Income Groups. Two sem hours (Formerly HEC 508)

Social, cultural and economic factors relative to dietary intakes of low-income families and groups. Survey of legislation and governmental food programs

available to these groups.

HEC 510 Family Financial Management by Objectives. Three sem hours (Formerly HEC 600 Home Management and Consumer Economics)

Principles of family financial planning and relationship to economic conditions, social trends and the needs of the family over the family life cycle.

HEC 511 Management for Special Needs Families. Two sem hours (Formerly HEC 611 Home Management for Disabled Homemakers)

Emphasis on helping families with special needs cope in contemporary society. Management techniques and support services available to help selected groups. Focus will vary according to semester offered: handicapped homemakers, displaced and single parent families, unemployed and retired households.

HEC 519 Foodservice Personnel Management. Two sem hours

Emphasis on skills and techniques used to manage foodservice personnel. Analysis of interpersonal relationships that impact employee motivation and morale, the emerging role of women in foodservice management and current developments in unionized foodservice operations.

Prereq: Introductory foodservice management course and basic management course.

HEC 520 Development of Educational Programs. Two sem hours

Organization, development and assessment of educational programs in clothing, foods, housing, interiors, nutrition and textiles in community settings (adult education, agencies, community colleges, governmental agencies and health care facilities) for identified audiences (preschool, adult, agency clients, health care patients, parents, community college students). *Not open to students with credit in HEC 550 Methods and Materials in Teaching Consumer Education.*

Prereq: Departmental permission.

HEC 521 Special Problems in Home Economics Education. Two sem hours (Formerly HEC 518)

Course developed to assist the in-service

teacher with specific problems in homemaking programs. Major concerns are the child with learning disabilities and special needs. Resources for teachers facing such problems in their responsibilities.

Prereq: HEC 370 Methods and Materials in Home Economics Education or equivalent.

HEC 531 Parent Education. Two sem hours (Formerly HEC 504, 603)

Study of parental roles and competence in family life; analysis of methods and techniques for providing education for parents.

HEC 532 Current Programs in Family Life Education. Two sem hours (Formerly HEC 512)

Philosophy and objectives in family life education, teaching-learning procedures; sources for teaching materials, professional consultations, resource persons in family life education and evaluation of sample materials.

Prereq: An undergraduate methods and materials course.

HEC 538 Nutrition Care Management. Two sem hours

Comprehensive examination of assessment/screening, planning, implementation, counseling and monitoring techniques used in the nutrition care management process. Development of nutrition care plans for assigned case studies. *Must be taken concurrently with HEC 548 Advanced Clinical Nutrition, to which the course is aligned in terms of content and assignments.*

Prereq: HEC 402 Nutrient Metabolism, CHM 351 Introductory Biochemistry and ZOO 326 Human Physiology.

HEC 540 Family Financial Advising. Two sem hours (Formerly HEC 631 Consumer Issues and Decisions in the Family)

Financial and counseling strategies for working with families throughout the life cycle. Special emphasis on the psychological aspects of money management and working with over-indebted families.

Prereq: A course in family financial management.

HEC 548 Advanced Clinical Nutrition. Three sem hours

In-depth study of clinical nutrition in management of disease. Emphasis on pathophysiology, metabolic requirements and dietary modifications. *Must be taken concurrently with HEC 538 Nutrition Care Management, to which the course is aligned in terms of content and assignments.*

Prereq: HEC 502 Nutrient Metabolism, CHM 351 Introductory Biochemistry, ZOO 325 Human Physiology.

HEC 550 Methods and Materials in Teaching Consumer Education. Two sem hours (Formerly HEC 502)

Examination of methods and materials used in effective teaching of consumer education at secondary and advanced levels. Classroom procedures, organization of resources and evaluation.

Prereq: HEC 370 Methods and Materials in Home Economics Education or equivalent and a basic course in consumer affairs or departmental permission.

HEC 556 Problems in Interior Design. Two sem hours (Formerly HEC 569)

Analyzing and solving the problems of interiors with regard to social, psychological and economics concerns of families.

Prereq: Departmental permission.

HEC 587 Cooperative Education. Three sem hours

Provides practical experience in the student's concentration for four to six months of full-time employment with an individual employer. *May not be used on 30 hour program plan for the master's degree. Offered on a Credit/No Credit basis.*

Prereq: Departmental permission.

HEC 590, 591, 592 Special Topics. One, two and three sem hours

An experimental course designed to investigate specific topics of concern in the concentration areas of study within the department.

Prereq: Departmental permission.

HEC 601 Curriculum Development in Home Economics Education. Two sem hours (Formerly HEC 511)

Contributions of home economics at

secondary level, techniques employed in curriculum planning and reconstruction, clarification of student needs in terms of current social problems.

Prereq: HEC 370 Methods and Materials in Home Economics Education or equivalent.

HEC 602 The Disadvantaged Family. Two sem hours (Formerly HEC 500)

Problems facing individuals in families that are socially, culturally and economically disadvantaged. Survey of resources for effective local and federal programs of assistance in social service, education and legislation; resource speakers and field trips.

HEC 608 Recent Developments in Foods. Two sem hours (Formerly HEC 580)

Survey of recent research in food science, including the production, preservation, processing and distribution of food.

Prereq: HEC 211 Food Science or equivalent.

HEC 609 Recent Developments in Food Systems Management. Two sem hours (Formerly HEC 581)

Evaluation of recent trends in food systems management, including food service systems, food and equipment innovations and personnel relationships.

Prereq: A course in food service/meal management or departmental permission.

HEC 612 Laws Affecting the Family. Two sem hours (Formerly HEC 545)

Laws related to the family; their historical development and application to various stages of the family life cycle. Family law from the viewpoints of family members and professional persons who work with families, legal assistance available to families.

HEC 613 Child Guidance in the Family. Two sem hours (Formerly HEC 541)

Consideration of theoretical approaches to child guidance applicable for home or school. Practical application of child guidance principles at various developmental stages.

HEC 616 Consumer Problems in Home Furnishings. Two sem hours (Formerly HEC 566)

Characteristics, cost, construction and range in quality of furniture, tableware and accessories, wall coverings, rugs and carpets, flooring, woods and fabrics; field trips. Purchasing problems are analyzed.

Prereq: HEC 208 Basic Interior Design or equivalent, HEC 285 Resource Management: Individual and Family or equivalent.

HEC 618 Recent Developments in Nutrition. Two sem hours (Formerly HEC 584)

Survey of recent research in nutrition including issues on determination of nutrient requirements, regulation of government nutrition policies and novel approaches for meeting nutrient needs. *Prereq: Six hours of credit in nutrition or departmental permission.*

HEC 619 Recent Developments in Clinical Nutrition. Two sem hours

Application of the practice of providing nutritional care to the patient in need of aggressive nutritional support.

Prereq: HEC 538 Nutrition Care Management and HEC 548 Advanced Clinical Nutrition.

HEC 620 Evaluation in Home Economics Education. Two sem hours (Formerly HEC 611)

Experience in analyzing progress toward important objectives in home economics education. Development of classroom tests and evaluation materials. Evaluation instruments and statistical techniques useful in home economics.

Prereq: HEC 370 Methods and Materials in Home Economics Education or equivalent.

HEC 622 Family Development. Two sem hours (Formerly HEC 540)

Family growth patterns through predictable stages of development, processes of interaction and cooperation, current research related to stages of development.

Prereq: HEC 209 Marriage and Interpersonal Competence.

HEC 623 Drug Abuse and Family Dynamics. Two sem hours (Formerly HEC 510)

Consideration of remedial and preventative aspects of drug abuse (alcohol

and other drugs) in families. The focus will be upon family dynamics relating to drug use with minor emphasis on the pharmacology of drugs.

HEC 625 The Fashion Field. Two sem hours (Formerly HEC 568)

The nature of fashion, the psychology of fashion, general definitions and background, fashion movements, the fashion centers, fashion trends and the major fashion designers.

HEC 630 Problems in Family and Consumer Economics. Two sem hours (Formerly HEC 630 Problems in Family Finance)

Analysis of financial and economic resources, demands and source of help for varying stages in family life cycle, cultural groups, standards of living and consumer economic problems.

Prereq: A course in family financial management.

HEC 632 The Man-Woman Relationship in Modern Society. Two sem hours (Formerly HEC 501)

Consideration of the changes and dynamics of interaction stimulated by emerging shifts in roles of men and women; implications of these changes for the family and society; impact of multiple roles upon various men-women relationships.

HEC 633 Families in Crisis. Two sem hours (Formerly HEC 542)

Social, psychological and interpersonal aspects of crisis situations in families; educational and therapeutic resources available to families in crisis.

HEC 634 Consumer Problems in Clothing and Textiles. Two sem hours (Formerly HEC 561)

Investigation of the sociological, psychological and economic facts involved in the selection and use of textiles and clothing.

Prereq: HEC 235 Textiles for Consumers, HEC 302 Experimental Clothing or departmental permission.

HEC 635 History of Costume. Two sem hours (Formerly HEC 562)

The costume from ancient times to present day; major characteristics; social, economic and aesthetic influences; recurring styles; influence on present fashion.

Prereq: A course in history.

HEC 636 Recent Developments in Home Equipment and Technology. Two sem hours (Formerly HEC 531/HEC 636 Recent Developments in Home Equipment)

Innovations in household equipment, including home computers. Emphasis on new technology, products, testing methods, consumer protection, government regulations and trends affecting home equipment.

HEC 640 Values and Valuing in Family Systems. Two sem hours (Formerly HEC 529)

Study of sources, characteristics and development of societal and personal values; impact of values and valuing on family management and decision making.

Prereq: HEC 510 Family Financial Management by Objectives.

HEC 642 Family in the Middle and Later Years. Two sem hours (Formerly HEC 544)

Individual, family and community planning for the later years of life; developing potentialities; maintaining health; providing reasonable security; building interpersonal relationships. Lectures, field trips and demonstrations.

Prereq: HEC 622 Family Development.

HEC 644 Recent Developments in Textiles. Two sem hours (Formerly HEC 660)

The nature of textile fibers; economic, chemical and physical problems related to their manufacture and use; technological advances to overcome these problems.

Prereq: HEC 235 Textiles for Consumers.

HEC 645 Clothing Design and Construction. Two sem hours (Formerly HEC 565)

Principles of flat pattern design, with application to a variety of styles and fabrics. Special problems in fitting, adaptations of design and processes of construction.

Prereq: HEC 235 Textiles for Consumers, HEC 302 Experimental Clothing or departmental permission.

HEC 647 History of Furniture and Contemporary Trends. Two sem hours (Formerly HEC 563)

A study of furniture of various periods of history and the relationships to contemporary styles.

HEC 648 American Interiors. Two sem hours

An investigation of the relationships between the various components of interior enhancement and indigenous arts and crafts to the major developments in American domestic architecture, A.D. 1600 to 1900.

HEC 649 International Nutrition. Two sem hours (Formerly HEC 585)

Study of world nutrition problems and possible solutions for meeting food crises on a worldwide basis.
Prereq: Six hours of credit in foods and nutrition or departmental permission.

HEC 650 Approaches to Marriage and Family Problems. Two sem hours (Formerly HEC 650 Marriage and Family Counseling)

Exploration of the interrelationships between marital counseling and the concepts of marital interaction and development. Comparison of the role of the marriage counselor and the family life educator in assisting families to cope with problems that arise throughout the family life cycle. This course does not provide training in counselor skills but does study the application of marital and family therapy to common problems experienced by married couples.

Prereq: A course in personality development or family interaction or departmental permission.

HEC 660 Consumer Behavior and Decision-making in the Family. Two sem hours (Formerly HEC 660 Decision Processing in the Family)

Study of decision-making theory and its application to family and consumer behavior.

HEC 661 Supervision in Home Economics Education. Two sem hours (Formerly HEC 613)

Study of current practices, theories and concepts of administration; analysis of leadership functions at the local, state and national level in home economics.

Prereq: Provisional certificate in consumer and home economics education and one year of teaching.

HEC 667 Fabric Design for the Home. Two sem hours (Formerly HEC 564)

Advanced work in experimental design with fabrics, with emphasis on use in the home.

Prereq: Departmental permission.

HEC 668 Proteins, Lipids and Carbohydrates. Two sem hours

Investigation of the macronutrients and their properties, functions and appropriate contribution to energy and growth requirements in health and disease.

Prereq: HEC 402 Nutrient Metabolism or equivalent.

HEC 669 Vitamins and Minerals. Two sem hours (Formerly HEC 583)

Emphasis on interrelationships of minerals and vitamins in human metabolism.

Prereq: HEC 402 Nutrient Metabolism; physiology recommended.

HEC 675 Textile Analysis. Two sem hours (Formerly HEC 661)

The chemical and physical analysis of fibers, yarns, fabrics and finishes; equipment and techniques used; interpretation of data; presentation of findings to the consumer; textile standards; current textile literature.

Prereq: HEC 644 Recent Developments in Textiles or departmental permission.

HEC 678 Research Methods and Design. Three sem hours (Formerly HEC 677 Research Methods for Home Economics)

Introduction to research methods and design, including evaluation of research, sampling techniques, basic statistical concepts, analysis of data and computer use. *Course is required for department majors.*

Prereq: Must be on a planned master's program. Should be taken early in graduate study.

HEC 680 Special Topics in Home Economics. Two sem hours (Formerly HEC 539)

An experimental course designed to investigate specific topics of concern in

the specialization areas of study in home economics.

Prereq: Departmental permission.

HEC 683 Workshops in Selected Areas. Two sem hours (Formerly HEC 595)

Prereq: Departmental permission.

HEC 686, 687, 688, 689 Practicum. One, two, three and four sem hours

Supervised field experience under the direction of a departmental adviser.

Prereq: Departmental permission.

HEC 690, 691, 692 Thesis. One, two and three sem hours

Completion of research problems and writing of a thesis under the direction of a departmental adviser and committee. A minimum of six semester hours in thesis credit must be earned.

Prereq: Departmental permission.

HEC 694 Seminar in Home Economics. Two sem hours (Formerly HEC 596)

Consideration and investigation of special problems in the specialization areas of study in home economics.

Prereq: Departmental permission.

HEC 697, 698, 699 Independent Studies in Home Economics. One, two and three sem hours (Formerly HEC 597, 598, 599)

An intensive study of a selected professional problem under the direction of a faculty adviser.

Prereq: Departmental permission.

These upper division undergraduate courses may also be taken for graduate credit and applied on the department's degree program. Not more than nine (9) hours of undergraduate coursework are permitted in the earning of any graduate program. See the Undergraduate Catalog for course descriptions.

- HEC 402 Nutrient Metabolism (3)**
- HEC 407 Administration and Supervision in Child Development Centers (3)**
- HEC 412 Nutrition of the Life Cycle (3)**
- HEC 416 Contemporary Issues in Nutrition (3)**
- HEC 419 Consumer Resource Management: Health Care (3)**
- HEC 422 Seminar in Child Development (2)**
- HEC 460 Tailoring (3)**
- HEC 461 Family Interaction (3)**
- HEC 472 Consumer Economic Issues (3)**
- HEC 473 Consumer Economic Problems (3)**
- HEC 474 Seminar in Consumer Affairs (2)**
- HEC 493 Food Cost Controls (3)**
- HEC 496 Professional Food Purchasing and Production (3)**

SOCIAL WORK CERTIFICATE

(Family and Children's Services Program)

Donald M. Loppnow
Adviser
411 King Hall
487-0393

The Family and Children's Services Program (FCSP) offers specialized preparation for social work careers in services to families and children. The program consists of a series of elective courses all of which focus on providing social work services to families and children. At the graduate level, the program is intended to be an educational resource available on a continuing education basis for agency staff who wish to enhance their knowledge and skills in social work with families and children. With the approval of their departmental graduate adviser or the social work adviser, graduate students may complete the program.

In order to be "certified" as having completed the FCSP, the student/practitioner must complete SWK 418 Policies and Issues in Services to Families and select any three additional courses from the following which are a part of the program.

- SWK 419 Family-Centered Practice**
- SWK 420 Working with Aging People**
- SWK 422 Specialized Services for Families with Children in Placement**
- SWK 424 Social Work with Physically and Mentally Handicapped**
- SWK 431 Substance Abuse**
- SWK 435 Group Work with Children and Families**
- SWK 460 The Law and Social Work with the Family**
- SWK 465 Social Work, Sex and the Family**
- SWK 470 Supervising Staff and Volunteers**

The process of selecting the courses most sensible for a particular person should be accomplished in consultation with the student's graduate adviser/social work adviser. Upon completion of the four courses with at least a 3.3 grade point average for graduate

students, the student is awarded a certificate recognizing completion of the FCSP. Students may enroll in the courses for undergraduate or graduate credit; course expectations are adjusted accordingly.

OTHER COURSES

Not more than nine (9) hours of undergraduate course work is permitted in the earning of any graduate degree. The following undergraduate course may be taken for graduate credit.

GRT 404 Gerontology Interdisciplinary Seminar (3)

COLLEGE OF TECHNOLOGY

DEAN: Alvin E. Rudisill

DEPARTMENTS

Business and Industrial Education
Industrial Technology
Interdisciplinary Technology

The College of Technology offers two master's degree programs with differing philosophies and objectives. The business and industrial education program is primarily recommended for the further professional and technical development of the teacher, supervisor or administrator of industrial arts or industrial vocational education. The industrial technology program is designed to assist in meeting the career goals of persons who are employed or who seek employment in industry. The essential difference between the two is that the former is education oriented while the latter is designed for industrial personnel.

The College of Technology also offers a new master's degree in liberal arts with a concentration in technology. The M.L.S. in technology focuses on the technical as well as socio-cultural aspects of technology in its past, present and future dimensions.

BUSINESS AND INDUSTRIAL EDUCATION

H. James Rokusek
Department Head
Sill Hall
487-4330

Robert A. Ristau
Coordinator of Advising
Master of Business Education
Sill Hall
487-4330

Harold E. PaDelford
Coordinator of Advising
Master of Arts in Industrial Education
Sill Hall
487-4330

The Department of Business and Industrial Education offers programs leading to the Master of Business Education and the Master of Arts in Industrial Education.

MASTER OF BUSINESS EDUCATION

This graduate program recognizes the need for broadly educated business teachers. It is planned to qualify students for careers in the field of business education in secondary schools and community colleges. Special opportunity is provided for students wishing to complete academic study required for vocational certification in distributive and office education. Candidates completing the degree must be certified to teach business education in the secondary schools of Michigan or have two years of successful, full-time teaching in a community college or business college.

M.B.E. Program Admission

Minimum standards for admission to the M.B.E. program will include a 2.5 undergraduate grade point average and either a valid teaching certificate or two years of successful post-secondary teaching experience.

For information about current M.B.E. admission policies and criteria, please contact the coordinator of graduate advising in the Department of Business and Industrial Education (487-4330).

Conditional Admission

Students with a Millers Analogies Test (MAT) of 37 but whose undergraduate grade point average is between 2.25 and 2.49 may qualify for conditional admission.

Conditionally admitted students must maintain a "B" (3.0) average in foundation courses and a "B+" average, with no grade below "B" and no repeats, in 12 hours of adviser approved M.B.E. program courses. Conditionally admitted students must have an appropriate adviser's written permission to enroll in M.B.E. program courses and will not be permitted to enroll in more than 12 hours as a conditional admittee. Students who successfully meet the probationary requirements will be granted regular admission.

Foundation/Prerequisite Courses (in the suggested sequence)

Foundation	Undergraduate Equivalent
MTH 118 (3)	Mathematical Analysis for Social Sciences I (3)
ECO 500 (3)	Principles of Economics (3)
ACC 501 (3)	Principles of Accounting (6)
MGT 501 (3)	Management: Concepts, Principles and Practices (3)
MKT 510 (3)	Marketing (3)
LAW 503 (3)	Legal Environment of Business (3)
ORI 502 (3)	Business Information Systems (3)

M.B.E. Program Requirements

Upon completion of any required courses, the candidate and the graduate adviser will jointly agree upon a program leading to the degree. Such a program includes minimum and maximum limits of graduate courses in the following areas:

	Min	Max
Arts and Sciences	2	6
Business Administration, Economics or Technology	2	6
General Education	2	6
Business Education	18	24

Required Courses

BE 569	Foundations of Business Education (2)	
BE 568	Coordination of Cooperative Education Programs (2) <i>or</i>	
BE 630	Psychological Development of Office Skills (3) <i>or</i>	
BE 675	Office Education Block (3) <i>or</i> some other improvement of instruction course	2 5
BE 678	Research in Business Education (3)	
BE 694	Business Education Professional Seminar (2)	

MASTER OF ARTS IN INDUSTRIAL EDUCATION

The program leading to a Master of Arts degree in industrial education provides advanced preparation in professional, technical and related fields as a foundation for career advancement and personal upgrading. The curriculum consists of regular class work, field experiences in industry and education, research activities, technical laboratory work and cognate courses. As a result of this advanced preparation, industrial educators should develop an understanding of the philosophical, social, psychological and economic foundations as a basis for developing and implementing industrial education programs.

The student's program of study is planned with a graduate adviser in industrial education. Each graduate program is customized to meet the needs, interests and abilities of the individual student.

NOTE: Students who register for classes in the Department of Business and Industrial Education must have a departmental graduate adviser's signature.

(Not required for the courses IE 500/501/502/504.)

Objectives of the Program

The program in industrial education is designed to:

1. provide advanced preparation in professional, technical and cognate areas;
2. develop an awareness and understanding of the philosophical, social and economic foundations as bases for industrial education programs;
3. produce professional personnel who will have the appropriate knowledge and competencies to promote and develop comprehensive and viable industrial education programs;
4. provide considerable flexibility in the selection of courses to meet the needs of each student;
5. enable a student to acquire a broad knowledge of the literature in industrial education;
6. provide a strong foundation for professional advancement and personal upgrading.

Requirements for Admission

An applicant for admission must:

1. meet Graduate School degree admission requirements;
2. hold a valid teaching authorization or certificate. The teaching certificate requirement will be waived for all currently employed community college faculty;
3. have completed a minimum of 30 semester hours in industrial technology and industrial education courses;
4. have a 2.5 undergraduate grade point average or 2.75 in last half of the bachelor's program;
5. receive the recommendation of the Graduate Committee in the Department of Business and Industrial Education.

Requirements for Completion of the Program

An applicant for the master's degree must:

1. have earned a minimum of 30 semester hours of graduate credit applicable to the program;
2. have earned a minimum of 20 semester hours of 3.0 ("B") average grade in the major.
3. have earned a minimum of 20 semester hours of coursework in selected areas of industrial education, including eight hours in the required core: 551, 562, 661, 677; six hours from the following professional courses: 452, 502, 504, 550, 650, 651,

652, 655, 662, 663, 664; and six hours from the following application courses: 591, 595, 680, 683, 688, 694, 697, 698, 699 or other 680 sequenced course numbers;

4. have completed a minimum of four semester hours in industrial technology (see approved departmental list);
5. have completed the requirements for one of the following concentrations:

Concentration in Industrial Arts Education

Industrial Arts (20)
Related Electives (4)
Cognates (6)
Total (30)

Concentration in Industrial-Vocational Education

Industrial-Vocational (20)
Related Electives (4)
Cognates (6)
Total (30)

6. hold a 3.0 ("B") grade point average for all graduate credit applicable to the master's degree program;
7. have earned a minimum of six semester hours in cognate courses;
8. receive the recommendation of the student's adviser, the Graduate Committee in the Department of Business and Industrial Education and the Graduate School of the University.

Cooperative Programs with Educational Leadership at the M.A. and S.P.A. Levels

The Department of Leadership and Counseling offers a cooperative program of vocational/technical administration. The program combines course work in vocational/technical education (industrial education, business education or home economics). This program is designed for persons seeking a career as either a director or supervisor of vocational education and is available at either the master's or specialist's level. Interested persons should contact the department head in Leadership and Counseling.

BUSINESS EDUCATION COURSES

These were formerly BED courses.

BE 524 Microcomputers in Business Education. Two sem hours

Hands-on experience using software with applications for classroom management (such as grade records and test banks) and classroom instruction (such as simulation).

Prereq: Graduate standing; senior standing (2.5 grade point average) with permission of department and Graduate School.

BE 568 Coordination of Cooperative Education Programs. Two sem hours

Analyzes the duties and responsibilities of the cooperative education coordinator. Focuses on human and public relations, laws and regulations, student placement, related instruction and program development. Required of all potential coordinators. Recommended for school administrators and vocational teacher education students.

BE 569 Foundations of Business Education. Two sem hours

Principles and developments in business education for school administrators and business teachers. The objectives and curricular patterns in business for different types of educational institutions, professional leadership and current research in the field.

BE 587 Cooperative Education in Business Education. Three sem hours

A cooperative education experience integrating classroom theory with a paid work experience in an area related to the student's field of study. Work sites must be approved by the Coordinator of Cooperative Education and the Department of Business and Industrial Education. Additional assignments may be required. *Credit/No Credit.*

Prereq: Departmental permission.

BE 611 Curriculum Models in Business Education. Three sem hours

Objectives, levels and patterns of business education programs will be studied and comparisons made with recent research.

BE 615 Information Processing. Two sem hours

Centers on office functions and the role of information processing, information processing concepts and careers, information processing skills (basic and advanced) and alternatives for information processing education.

Prereq: Graduate standing or departmental permission.

BE 626 Administrative Practices in the Contemporary Office. Three sem hours (Formerly ADS 626)

Contemporary office administration practices are studied and related competencies developed. Specific activities in office management are dealt with, technical work tasks and personnel responsibilities are applied to various office situations.

BE 630 Psychological Development of Office Skills. Three sem hours

Psychological techniques and procedures for developing both basic and higher levels of facility in typewriting and shorthand courses.

Prereq: Business education major.

BE 651 Administration of Vocational-Technical Education. Two sem hours (Formerly BE 672 Administration of Business Education)

Focuses on the legislation, programs, planning and regulations which are unique to vocational education and the administrative functions which are directly related. Recommended for school administrators and vocational teacher education students.

BE 661 Evaluation in Business and Industrial Education. Two sem hours

Principles and methods of student and program evaluation, standards as they relate to evaluation and instructional effectiveness, program evaluation and the application of standards in secondary and post-secondary education.

BE 675 Office Education Block. Three sem hours (Formerly BED 580)

Study of philosophy, planning and evaluation procedures for office education block programs. Prepare instructional materials for block programs.

BE 678 Research in Business Education: Analysis and Application. Three sem hours

A review of basic research techniques applied to business education, including office and distributive education areas. Studies completed in business education are analyzed in light of research processes and conclusions. Students become involved in the design and application of research methodology to projects appropriate to business education classes.

BE 679 Special Topics in Business Education. One sem hour

Provides for intensive study of selected topics drawn from current developments in the total field of business education.

Prereq: Admission to graduate study.

BE 680 Special Topics in Business Education. Two sem hours

Provides for intensive study of selected topics drawn from current developments in the total field of business education.

Examples of topics:

Career Education
Consumer Education
Economic Education

BE 681 Special Topics in Business Education. Three sem hours (Formerly BED 540)

Provides for intensive study of selected topics drawn from current developments in the total field of business education.

Examples of topics:

Competency-Based Education
Operation of School Stores
Youth Groups in Vocational Education
Meeting Needs of Slow Learners

BE 683 Workshop in Business Education. Two sem hours (Formerly BED 595)

Modern methods, procedures and materials for improving the effectiveness of the classroom teacher in the areas of shorthand, typewriting, bookkeeping and basic business.

BE 694 Business Education Professional Seminar. Two sem hours

This course provides a culminating experience for students completing the master's degree in business education. It will include discussion and experiential activities that encourage students to apply academic achievements to func-

tional professional situations.
Prereq: Must have completed 24 hours on M.B.E. degree program.

BE 697, 699 Independent Studies. One and three sem hours (Formerly BED 597, 599)

An intensive study of a problem or group of problems under the direction of a University faculty member.
Prereq: Departmental permission.

INDUSTRIAL EDUCATION COURSES

IE 500 Crafts. Two sem hours (Formerly IED 500)

Basic craft areas of wood, metal, graphics, plastics, leather and ceramics are explored. Additional elective areas are also available. *Not open to departmental majors.*

IE 501 Crafts for Special Education. Two sem hours (Formerly IED 501)

The development of craft activities to supplement the curriculum, provide therapeutic manipulative experiences and leisure activities in the special education classroom. Emphasis is given to the identification of industrial employment opportunities. *Not open to departmental majors.*

IE 502 Career Education for the Elementary Child. Two sem hours (Formerly IED 502)

A study of the concepts and methods used to develop an awareness of the careers of society with elementary school children. Emphasis is on individual and group activities relevant to integrated curriculum studies. *Also open to departmental majors.*

IE 504 Career Exploration and Preparation. Two sem hours (Formerly IED 504)

Practical applications of experience based career education will be examined as they relate to secondary school industrial education. Field visitations and public school resource personnel will illustrate to the experienced teacher practical applications of the exploratory and preparatory concepts of career education. *Also open to departmental majors.*

IE 524 Computer Applications for Vocational-Technical Instruction. Two sem hours

Description and illustration of computer hardware and software for vocational-technical education. Mainframe and microcomputer systems will be reviewed. Opportunity to prepare and develop computer instructional materials for the microcomputer.
Prereq: Industrial education majors or minors or departmental permission.

IE 525 Robotics Applications in Industrial Education. Two sem hours

An overview of the history, principals of operation, manufacture and use of robots and robotic systems. Emphasis provided to the analysis of these topics for programs of study in industrial education.
Prereq: Industrial education majors or minors or departmental permission.

IE 550 Development of Industrial Education. Two sem hours (Formerly IED 550)

The historical development of industrial education programs; the influence of industrial, technological and societal change; institutions, professional associations, movements and leaders in the field.

IE 551 Philosophy of Industrial Education. Two sem hours (Formerly IED 551)

Philosophical viewpoints concerning industrial arts, vocational and technical education; historical development and philosophical justification of modern programs.

IE 562 Curriculum Development in Industrial Education. Two sem hours

Development and current status of curriculum in industrial arts and industrial-vocational education, principles and procedures for curriculum development, criteria for content selection, contemporary curriculum patterns and factors involved in curriculum change.

IE 568 Coordination of Cooperative Education Programs. Two sem hours

Analyzes the duties and responsibilities of the cooperative education coordinator. Focuses on human and public relations, laws and regulations, student placement, related instruction and program development. Required of all potential coordinators. Recommended for school administrators and vocational

teacher education students.

IE 587 Cooperative Education in Industrial Education. Three sem hours

A cooperative education experience integrating classroom theory with a paid work experience in an area related to the student's field of study. Work sites must be approved by the Coordinator of Cooperative Education and the Department of Business and Industrial Education. Additional assignments may be required. *Credit/No Credit.*
Prereq: Departmental permission.

IE 590, 591, 592 Special Topics. One, two and three sem hours (Formerly IED 539)

IE 594, 595, 596, 597 Workshops in Selected Areas. One, two, three and four sem hours (Formerly IED 539)

IE 650 Industrial Education in Colleges and Universities. Two sem hours (Formerly IED 650)

The philosophy, history and development of industrial teacher education programs; current trends in selected institutions.

IE 651 Administration of Vocational-Technical Education. Two sem hours

Focuses on the legislation, programs, planning and regulations which are unique to vocational education and the administrative functions which are directly related. Recommended for school administrators and vocational teacher education students.

IE 652 Technical Programs in Community Colleges. Two sem hours (Formerly IED 652)

Nature, scope and functions of vocational and technical programs in community colleges; recent developments.

IE 655 Supervision of Industrial Education. Two sem hours (Formerly IED 680)

Principles and problems involved in the improvement of instruction in industrial education. *Open to majors in industrial education and to majors in administration.*

IE 661 Evaluation in Business and Industrial Education. Two sem hours (Formerly Evaluation in Industrial Education)

Principles and methods of student and program evaluation. Standards as they relate to evaluation and instructional effectiveness. Program evaluation and the application of standards in secondary and post-secondary education.

IE 663 Instructional Media in Industrial Education. Two sem hours (Formerly IED 663)

Recent developments in instructional media and technology, the relationship of media to the psychology of learning, implications for programs of industrial education.

IE 664 Laboratory Planning, Two sem hours (Formerly IED 670)

Analysis of space and equipment requirements of industrial education laboratories. Consideration of specific functions, safety, efficiency, location and design as they relate to educational philosophy and objectives.

IE 677 Research in Industrial Education. Two sem hours (Formerly IED 592)

Basic research types, methods and procedures; extent and sources of studies; the development of investigations; consumption of reported studies and the role played in the improvement of industrial education programs.

IE 679, 680, 681 Special Topics. One, two and three sem hours (Formerly IED 539)

IE 682, 683, 684, 685 Workshops in Selected Areas. One, two, three and four sem hours

IE 686 Practicum in Industrial Education. Two sem hours (Formerly IED 593)

An examination and evaluation of a variety of instructional methods. Direct experiences are provided in developing and utilizing instructional materials.

IE 688 Internship in Industrial Education. Two sem hours (Formerly IED 594)

A supervised experience in education. Opportunities are provided for directing a variety of teaching-learning experiences contracted with a University faculty member. *Credit/No Credit.*

IE 693, 694, 695, 696 Seminar in Industrial Education. One, two, three and four sem hours (Formerly IED 596)

A discussion of problems and issues in industrial education with emphasis on literature review and appraisal.

IE 697, 698, 699 Independent Studies. One, two and three sem hours (Formerly IED 597, 598, 599)

Opportunities are provided for the selection and completion of an individual study under the direction of a University faculty member. An approved written proposal is required. Both "Independent Study" (technical study without the prerequisite of IE 677) and "Research Proposal Format" guideline sheets are available from the department.

Prereq: Department permission.

TENTATIVE SCHEDULE

Course	Winter	Spring	Summer	Fall
BE 568				X
BE 569	X		X	
BE 611	X			
BE 630				X
BE 651	X			
BE 661	X			
BE 672				X
BE 675	X			
BE 678				X
BE 681			X	
BE 683			X	
BE 694	X	X		
IE 500		X		X
IE 501	X	X		
IE 502		X		
IE 504			X	
IE 551				X
IE 562				X
IE 568				X
IE 650	X			
IE 651	X			
IE 652			X	
IE 661	X			
IE 663		X		
IE 664		X		
IE 677	X			
IE 694				X

INDUSTRIAL TECHNOLOGY

Thomas G. Soyster
Acting Department Head
120 Sill Hall
487-2040

Thomas G. Soyster
Coordinator of Advising
112 Sill Hall
487-2040

The Master of Science in industrial technology is a program designed to extend the undergraduate degree in industrial technology or related fields. These related fields include such majors as industrial education, business or engineering. It is intended to increase the student's skills and understanding of industrial processes, production techniques, design, research and development data processing and management.

The program is designed for technical managers, production supervisors and related types of industrial personnel. It is also planned for individual upgrading or providing advancement opportunities for employees already established with a company. These people generally have the function of serving in a liaison capacity between the practical orientation of the technician and the theoretical orientation of the engineer and/or scientist.

Note: Students who register for classes in the Department of Industrial Technology *must* have a *departmental graduate adviser's signature*.

Objectives of the Program

The program in industrial technology is designed to:

1. develop advanced competencies associated with technical, supervisory and related positions in industry;
2. develop the competencies to serve as liaison personnel between management and the various functional areas of a company;
3. develop the "generalist" perspective needed by those employed in or those aspiring to mid-management industrial positions;
4. provide advanced preparation in construction or manufacturing technology in relating the technical and human components of industry;

5. broaden the career potential of individuals through experiences in manufacturing or construction technology.

Requirements for Admission

All applicants for admission must:

1. meet degree admission requirements of the Graduate School;
2. possess a minimum undergraduate grade point average of 2.5;
3. possess a baccalaureate degree in industrial technology or related degree such as industrial education, business or engineering;
4. have completed the undergraduate basic technical courses in industrial technology consisting of 12 semester hours or the equivalent.
5. International students must also score at least 550 on the TOEFL or 80 on the Michigan Test at the University of Michigan.

Requirements for Completion of the Program

An applicant for the master's degree must:

1. have earned a minimum of 30 semester hours of graduate credit applicable to the program;
2. have earned a minimum of 16 semester hours with a 3.0 ("B") average in the major;
3. hold a 3.0 ("B") grade point average for all graduate credit used to fulfill degree requirements;
4. have completed the requirements for one of the following concentrations;

Concentration in Manufacturing

Industrial technology core (6)
Business and industry core (8-10)
Manufacturing technology (10)
Related electives (4-6)
Total (30)

Concentration in CAD/CAM

Industrial technology core (6)
Business and industry core (8-10)
CAD/CAM technology (14-16)
Total (30)

Concentration in Construction

Industrial technology core (6)
Business and industry core (8-10)
Construction technology (10)
Related electives (4-6)
Total (30)

5. have completed a thesis/development option: research or development

options involving original scholarly research or a theory-application project are available. Students must have an overall 3.5 grade point average and obtain the permission of the department to elect these options. Guidelines and requirements governing these activities are available through the department or the Graduate School office;

6. receive the recommendation of the student's adviser and the Graduate School.

INDUSTRIAL TECHNOLOGY COURSES

IT 506, 507, 508 Industrial Based Colloquium. One, two and three sem hours

Course descriptions are formulated at the time of an industry's request and reflect the particular requirements of the client company. *Graded Credit/No Credit.*

IT 510 Electricity-Electronics. Two sem hours (Formerly IED 510)

An investigation of basic theories combined with laboratory experiences and practical application of test equipment. *Prereq: IT 200 Industrial Electricity and MTH 107 Plane Trigonometry.*

IT 511 Electronic Control. Two sem hours

An overview of contemporary circuits and devices utilized to control machines and industrial processes, conventional industrial controls, digital circuits and microprocessor based controls. *Not open to students with credit in IT 314 Integrated Circuits or IT 434 Microcomputer Circuits.*

IT 517 Applications of Robotics in Manufacturing. Three sem hours

Analysis of case studies and development of robotic applications that address practical problems confronting technical personnel and managers working with manufacturing automation. *Prereq: IT 417 Industrial Robotics and graduate standing in industrial technology degree program or permission of instructor.*

IT 537 Numerical Control in Manufacturing. Three sem hours (Formerly IED 537)

Study of the conversion of part descriptions to numerical control programs for

mill and drill machining. Students write and execute NC programs using COMPACT II language. Verification of programs is accomplished using computer graphics.

Prereq: A working knowledge of basic machine tools.

IT 540 Recent Technological Developments. Two sem hours (Formerly IED 640)

Innovations in materials and processes and their implications for industrial education and industrial technology. Industrial visitations and other means of investigation will be employed.

IT 550 Introduction to Statistical Process Control. Two sem hours

An introduction to the techniques of statistical process control. Topics will include inspection and problem solving, graphical representation of data and descriptive statistics, control chart theory and process capability and control charts.

IT 551 Advanced Statistical Process Control. Two sem hours

An advanced course in statistical process control. Topics will include special purpose control charts, statistical analysis of control conditions, capability analysis and tool wear and trend analysis.

Prereq: IT 550 Introduction to Statistical Process Control.

IT 560 Manufacturing Facility Analysis. Four sem hours

This course compares textbook manufacturing theory with applied manufacturing principles. Various functions of actual manufacturing operation will be discussed and the direct impact on production output for a given manufacturing facility.

Prereq: Senior status with a 2.75 grade point average and permission from the Graduate School; or graduate status and permission from the instructor.

IT 590, 591, 592 Special Topics. One, two and three sem hours (Formerly IED 539)

IT 594, 595, 596, 597 Workshops in Selected Areas. One, two, three and four sem hours

IT 610 Electronics Circuitry. Two sem hours (Formerly IED 610)

Electronic theories as related to solid state circuits. Solid state design, printed circuit board fabrication and circuit construction.

Prereq: IT 414 Integrated Circuit Applications.

IT 613 Drafting Technology. Two sem hours (Formerly IED 513)

Drafting methods and materials: theory and application of multi-view drawing, auxiliaries, cams and gears, mechanisms, dimensioning and geometric tolerancing.

Prereq: IT 122 Technical Drawing.

IT 615 Product Design. Two sem hours (Formerly IED 515)

Principles of product design: emphasis on the design process, basic elements of design and interdependence of design and human needs.

Prereq: IT 122 Technical Drawing.

IT 616 Architectural Drafting and Design. Two sem hours (Formerly IED 516)

Contemporary architectural drafting and design: methods of presentation, site planning, perspective, rendering and recent developments in drafting media.

Prereq: ID 128 Architectural Drawing I.

IT 618 Computer Assisted Design. Two sem hours (Formerly IED 518)

The use of the computer and FORTRAN programming to solve graphic design problems. Experiences are provided on computer terminals to enter data, preview a design and execute a program. *Not open to students with credit in IT 231 Industrial Computer Graphics.*

Prereq: MTH 107 Plane Trigonometry and a course in FORTRAN programming.

IT 620 Power Systems. Two sem hours (Formerly IED 520)

The technology involved in harnessing and controlling power, including its sources, generation, transmission and utilization; the machines and devices used to convert power in industrial application.

IT 621 Energy Control Analysis. Two sem hours (Formerly IED 521)

Fluid power and direct drive transfer systems are studied in relation to energy utilization in industry. Principles of hydraulics, pneumatics, fluidics, transmission systems and instrumenta-

tion related to control.

Prereq: IT 318 Energy Transfer Systems or one undergraduate course in physics or permission of instructor.

IT 626 Solar Energy Applications. Two sem hours

A study of solar energy and applications to space heating and domestic hot water. Topics include landscape developments; solar architecture; design and construction of collectors, distribution systems and storage; heat loss and system evaluation.

Prereq: IT 128 Architectural Drawing I and IT 201 Construction Systems.

IT 633 Plastics Technology. Two sem hours (Formerly IED 533)

Sources and properties of plastics materials; testing, chemical production, molding and forming processes; the fabricating and finishing industry. *Not open to students with credit in IT 202 Plastics.*

IT 634 Plastics Forming Processes. Two sem hours (Formerly IED 534)

Selection of plastics resins for product design; application of resins to industrial production; molding, forming and fabricating techniques including mold design and testing.

Prereq: IT 633 Plastics Technology or IT 202 Plastics.

IT 636 Metals Technology. Two sem hours (Formerly IED 536)

A study of the metals industry: sources, characteristics and refining of metals; testing procedures; machining and processing applications; production methods.

Prereq: IT 123 Metals Processes or IT 215 Machine Tool Metalworking.

IT 640 Contemporary American Industry. Two sem hours (Formerly IED 540)

The structure of the industrial institutions in American society: formal organization, production, financial structure, research and development and union organization in industry. *Not open to students with credit in IT 103 Introduction to Modern Industry.*

IT 641 Materials of Industry. Two sem hours (Formerly IED 541)

Selected industrial materials: sources, properties, characteristics, analysis and testing.

Prereq: IT 123 Metal Processes or IT 215 Machine Tool Metalworking and IT 202 Plastics.

IT 645 Occupational Safety and Health. Two sem hours (Formerly IED 545)

An exploration of occupational safety and health from a human behavior perspective. Attention will be given to the development of safety management systems. Legislative safety and health policies will be analyzed to determine their effectiveness.

IT 647 Industrial Research and Development. Two sem hours (Formerly IED 547)

Laboratory experiences focusing on production problems utilizing various materials, processes, methods of measurement and analysis techniques.

IT 648 Principles of Construction Technology. Two sem hours (Formerly IED 548)

A study of the production system of the construction industries, utility systems, housing construction and city and regional planning practices.

IT 649 Principles of Manufacturing Technology. Two sem hours (Formerly IED 549)

A study of the production system of manufacturing: researching, designing and engineering products and processes as well as the production of components, sub-assemblies and final assemblies.

IT 650 Advanced Principles of Manufacturing Technology. Two sem hours

An application of basic concepts and techniques in related areas of manufacturing technology to include forecasting, quality control, planning and scheduling and methods analysis. Emphasis will be placed on utilizing existing and developing new computer software in an applied context.

Prereq: IT 649 Principles of Manufacturing Technology or equivalent.

IT 679, 680, 681 Special Topics. One, two and three sem hours (Formerly IED 539)

IT 682, 683, 684, 685 Workshops in Selected Areas. One, two, three and four sem hours

IT 688 Cooperative Education. Three sem hours

The industrial technology 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. Limited to students without a baccalaureate in industrial technology who do not possess relevant industrial experience. *Graded Credit/No Credit. Prereq: Approval of department head.*

IT 689 Industrial Internship. Two sem hours (Formerly IED 694)

A field study of industrial theory and practice through directed internship experiences with cooperating industries. Designed for students desiring experiences beyond those obtained in their previous or present employment.

IT 690, 691, 692 Degree Option: Thesis. One, two and three sem hours

A research-oriented study conducted under the supervision of an adviser and departmental graduate committee, under the guidelines described in the EMU Thesis Manual.

Prereq: 3.5 graduate GPA and departmental permission.

IT 690, 691, 692 Degree Option: Development Project. One, two and three sem hours

A theory-application project conducted under the supervision of an adviser and departmental graduate committee.

Prereq: 3.5 graduate GPA and departmental permission.

IT 697, 698, 699 Independent Studies. One, two and three sem hours (Formerly IED 597, 598, 599)

Opportunities are provided for the selection and completion of an individual study under the direction of a University faculty member. An approved written proposal is required. Both "Independent Study" and "Research Proposal Format" guideline sheets are available from the department.

Prereq: Departmental permission.

OTHER COURSES

These upper division undergraduate courses may be elected for credit toward a master's degree in industrial technology. Not more than nine (9) hours of undergraduate coursework are permitted in the earning of any graduate program.

- IT 400 Site Planning and Development (3)
- IT 401 Construction Estimating and Bidding (2)
- IT 402 Construction Materials (3)
- IT 403 Production Control in Construction (2)
- IT 405 Computer Applications for Industry (3)
- IT 406 Construction Law (2)
- IT 414 Integrated Circuit Applications (3)
- IT 415 Communication Circuits (2)
- IT 416 Introduction to Numerical Control Programming (3)
- IT 417 Industrial Robotics (3)
- IT 418 Planning Manufacturing Systems (3)
- IT 420 Controlling Manufacturing Systems (3)
- IT 425 Improving Manufacturing Systems (3)
- IT 428 Control and Instrumentation (3)
- IT 431 Interactive Industrial Computer Graphics (3)
- IT 432 Introduction to Computer-Aided Design (3)
- IT 433 Advanced Topics in Computer-Aided Design (3)
- IT 434 Microcomputer Circuits (3)
- IT 478 Construction Seminar (2)
- IT 479 Special Topics (3)
- IT 485 Computer Aided Manufacturing (3)
- IT 494, 495, 496 Industry Based Special Topics (1,2,3)

TENTATIVE SCHEDULE

Course	Winter	Spring	Summer	Fall
IT 514		X		X
IT 517	X			
IT 537	X	X		X
IT 540		X		X
IT 615				X
IT 616	X			
IT 617				X
IT 618	X			X
IT 620			X	X
IT 621	X			
IT 626			X	X
IT 633		X		X
IT 634	X		X	
IT 636		X		X
IT 640	X		X	
IT 645	X	X		
IT 647	X	X		
IT 648		X		X
IT 649	X		X	X
IT 689	X	X	X	X

INTER- DISCIPLINARY TECHNOLOGY

Paul Kuwik
Department Head
Sill Hall
487-1161

Alexandra Aldridge
Coordinator of Advising
Sill Hall
487-1161

MASTER OF LIBERAL STUDIES IN TECHNOLOGY

The Department of Interdisciplinary Technology offers a graduate program which addresses the social and economic impacts of technology. The main objective of this interdisciplinary degree program is to help prepare students for managerial, administrative or consulting positions with technology-based organizations. The Master of Liberal Studies in technology is flexible in format. Students may tailor their program of study to meet specific educational and employment objectives.

In particular M.L.S. students will acquire:

1. comprehension of the central concepts and issues related to the study of technology and society;
2. knowledge of significant technical developments in history and the effects of these developments on individuals, societies and the environment;
3. an understanding of technological systems and the present and future impact of such systems on the quality of life;
4. the ability to integrate information from a variety of sources and disciplines in solving social-technical problems;
5. a knowledge of technology assessment techniques and the ability to identify, describe, discuss and utilize the major tools and methodologies for assessing technology.

Special Features of the M.L.S. in Technology Program

Flexibility—Students can custom design a program to suit their educational and employment objectives.

Evening Classes—Mature students/career changers can pursue their degree on either a full-time or part-time basis.

Internships—Placement within business or industry is an option for the final project.

Contact—with practitioners in business or industry. Lectures, seminars and conferences with outside experts are an established part of this program.

Admission Requirements

Students with a bachelor's degree from an accredited institution with an overall GPA of 2.6 (or 3.0 in their final

60 hours of undergraduate study) are eligible to apply for admission. Individuals with degrees in business, technology, humanities, arts and sciences are encouraged to apply. Two letters of recommendation are required as is a program planning interview with an adviser.

Conditional Admission

Students not meeting regular admission requirements may be admitted on a conditional admission basis with the approval of the program coordinator. Conditionally admitted students must complete 10 semester hours of course

work in courses specified by the program coordinator and maintain at least a 3.3 average. Students may not repeat courses to attain the required grade point average. Students who successfully meet the probationary requirements will be granted regular admission.

Program Description and Requirements for the Degree

A total of 30 semester hours is required for the M.L.S.:
twelve semester hours of the core curriculum;
twelve semester hours of complementary concentration; and
six semester hours of final project work.

The core curriculum of the M.L.S. degree consists of five (5) courses in technology studies which are required of every student.

Core Curriculum

- IDT 500 Introduction to the Study of Technology (2)
- IDT 501 History of Technology (4)
- IDT 600 Technology Assessment (2)
- IDT 601 Multidisciplinary Seminar in Technology (2)
- IDT 602 Contemporary Issues in Technology (2)

Complementary Concentrations

Students can select two or more complementary concentrations in other fields. A minimum of four hours is required in each of the complementary areas of study. (Twelve hours total required.)

Complementary concentrations are available in the following areas:

- Communication
- Computer Science
- Economics
- Educational Leadership
- Geography
- Industrial Education
- Industrial Technology
- Labor Studies
- Management
- Marketing
- Physics
- Public Administration
- Psychology
- Sociology
- Technical Writing
- Training Management

Other areas also are available. Students should consult with the M.L.S. adviser for additional information and specific course approval.

Capstone Experience

Six (6) hours of final project work are required. Students may elect Option I or Option II. Those contemplating doctoral study should select Option I.

Option I - Thesis

IDT 690, 691, 692 Thesis (6)

Option II - Independent Study

IDT 697, 698, 699 Independent Study (6)

Additional information about the Master of Liberal Studies in technology can be obtained from the program coordinator. Applications for admission should be submitted to EMU's Graduate School office.

INTERDISCIPLINARY TECHNOLOGY COURSES

IDT 500 Introduction to the Study of Technology. Three sem hours

An interdisciplinary overview of basic concepts and approaches to the study of technology and culture. Includes introductions to the philosophy of technology, history of technology, futures studies and contemporary issues in technology.

Prereq: Graduate standing at Eastern Michigan University.

IDT 501 History of Technology. Four sem hours

An overview and in-depth examination of major technical developments that have affected the course of human history. Emphasis is placed on the interrelationships of the technical to the socio-cultural milieu.

Prereq: Graduate standing at Eastern Michigan University

IDT 505 Managing Your Career in Technology. Three sem hours

Designed for the mid-level professional or manager in a technology-based industry. Self-assessment of interests, values, skills and motivation; job/career decision-making and mid-career change methodology.

IDT 514 Graphic Presentation. Two sem hours (Formerly IED 514, IT 514)

The techniques, processes and procedure of developing graphic presentation materials. Topics include designing, recording, reproducing and storing and retrieving systems. Laboratory activities are required.

Prereq: IT 122 Technical Drawing.

IDT 517 Graphic Arts. Two sem hours (Formerly IED 537, IT 517)

General graphic arts including layout and design, composition, photo mechanics, offset and screen process reproduction.

IDT 555 Technology and Organization. Three sem hours

Development, analysis and theory of technological organizations as well as practical problems confronting technological managers at a time of transition as exemplified by leading U.S. and Japanese corporations.

Prereq: Graduate standing in interdisciplinary technology or departmental permission.

IDT 556 Introduction and Implementation of Technological Change. Three sem hours

The course will focus on principles and theories of technological innovation, overcoming resistance to change, participative management in theory and in practice. Case studies will be used and discussed intensively.

Prereq: Graduate standing in interdisciplinary technology or departmental permission.

IDT 587 Cooperative Education in Interdisciplinary Technology. Three sem hours

Co-op is an educational strategy that integrates classroom theory with a semester of paid work experience in an area related to the student's field of study. Work sites must be approved by the coordinator of Cooperative Education and the Department of Interdisciplinary Technology. Additional assignments may be required. *Credit/No Credit.*

Prereq: Departmental permission.

IDT 601 Multidisciplinary Seminar in Technology. Two sem hours

A multidisciplinary seminar which explores different philosophic and discipline-based perspectives of technology around a special topic. Usually a lecture series with outside speakers, held at a conference center.

IDT 602 Contemporary Issues in Technology. Two sem hours

An in-depth examination of a particular issue (or set of related issues) usually of topical interest related to technology and society. This course will generally take place in business and industry settings.

Prereq: IDT 500 Introduction to the Study of Technology or departmental permission.

IDT 617 Visual Communication. Two sem hours (Formerly IED 517, IT 617)

Application of visual communication theories in the production of media including photography, photo mechanics, offset and screen processes.

IDT 680 Technology Assessment. Three sem hours

A survey of the field of technology assessment that includes theoretical bases, unique modes of inquiry, major assumptions, institutional activities, major problems and future trends.

Prereq: Completion of IDT 500 Introduction to the Study of Technology and IDT 501 History of Technology.

OTHER COURSES/PROGRAMS

The Department of Interdisciplinary Technology currently offers programs and courses in polymers and coatings technology, rubber technology, energy management, communications technology, coating finishes and wire technology. Among the courses offered are:

IDT 400 Polymers and Coatings Technology I (3)

IDT 401 Polymers and Coatings Technology I Laboratory (3)

IDT 402 Polymers and Coatings Technology II (3)

IDT 403 Polymers and Coatings Technology II Laboratory (3)

IDT 404 Photo Communications Workshop (3)

IDT 405 Coating Processes I (3)

IDT 406 Coating Processes I Laboratory (3)

IDT 407 Coating Processes II (3)

IDT 408 Seminar in Technological Impacts (3)

IDT 409 Emerging Technologies in Storage and Retrieval (3)

IDT 410 Mechanical and Physical Properties of Polymers (3)

IDT 411 Mechanical and Physical Properties of Polymers Laboratory (1)

IDT 412 Infrared Thermography (3)

IDT 414 Rubber Technology II (2)

IDT 415 Computer Applications in Energy Management (3)

IDT 420 Women and Technology (3)

IDT 425 Communication Technology and Social Change (3)

IDT 430 Seminar in Energy Management Technology (3)

IDT 460 Advanced Topics in Coating Technology (3)

IDT 495 Technology, Values and the Future (3)

The above upper division undergraduate courses may be taken for graduate credit. A maximum of nine credit hours in 400 level courses may be applied on the department's degree program. See the Undergraduate Catalog for course descriptions.

OTHER INFORMATION ALUMNI

OFFICE FOR ALUMNI RELATIONS

Director: **Patrick R. Moran**
Assistant Director: **Catherine Canzonetta**
202 McKenny Union (487-0250)

ALUMNI are Eastern Michigan University's lifeline to every community in the state of Michigan, to business and industry across the country and to the world-at-large. The continuing interest of graduates and former students is a major investment in the progress and future of EMU.

The Office for Alumni Relations is the coordinating body for all alumni activity and the means by which personal relationships established during student days can be maintained and renewed.

It is responsible for updating the computerized list of 65,000 known alumni, assisting in special reunions of various constituent groups of alumni, providing programs for special alumni meetings, and giving staff support to the Alumni Association and various other alumni groups. Special activities include Homecoming, golf outings, concerts and continuing education programs.

In August 1983, it initiated a new alumni periodical, "Eastern Today," published four times yearly in cooperation with the Office of Public Information and Publications. The magazine is designed to enhance communications about and among alumni, students, parents, faculty, administration and friends of EMU.

The Alumni Association plans programs of interest for alumni and serves as the vehicle for communicating to the University, faculty and administration the concerns of EMU's alumni as they relate to the development of the University.

Active in fund raising campaigns, the Association is responsible for the Memorial Chimes and Pierce Hall clocks given in former years, and more recently for gifts to the University Library, various established funds and scholarships, and additional scholarships

and aid to student organizations. Charles McKenny Union, completed in 1931 and built through the cooperative efforts of alumni and the University, stands as a visible symbol of the Association's ongoing service to EMU.

The Association is governed by a 24-member Board of Directors elected in the spring of each year by a vote of all eligible Association members. The president of the University is an ex-officio member of the Board and the director of the Office for Alumni Relations serves as secretary.

UNIVERSITY ADVANCEMENT

OFFICE OF DEVELOPMENT

Director: **James L. Brunner**
212 McKenny Union (487-0252)

THE OFFICE OF DEVELOPMENT

was established in 1975 to create a new

awareness of the University's ever-increasing need for private support and to organize a University-wide development program.

Its primary functions include the identification, cultivation, and solicitation of alumni, friends, parents, corporations, foundations, and civic and labor organizations; the development of direct-mail, planned giving, and other programs to meet specific annual, capital and endowment objectives; the receipt, acknowledgment and accurate recording of all gifts to the University; and the coordination of all fund-raising activities undertaken in the name of Eastern Michigan University.

OFFICE OF RESEARCH DEVELOPMENT

Director: **Donald Loppnow (Acting)**
104 Snow (487-3090)

THE OFFICE OF RESEARCH

DEVELOPMENT'S objectives are to stimulate, initiate, develop and ad-

minister externally funded research activities in the University by working with faculty, administration and students interested in obtaining funds for independent research, demonstration programs, experimental projects and other efforts directed toward expanding the scope and quality of the University.

Its activities include:

1. Identification of funding sources through liaison with governmental and private agencies, screening of program announcements and requests for proposals, and personal contacts.
2. Providing information on funding opportunities through the faculty-staff newsletter to EMU personnel whose specific interests and capabilities are known.
3. Maintaining informational files on private, state and federal funding programs and updating changing priorities or funding levels of potential sponsors.
4. Assisting proposal writers in editing, typing and preparing proposals for submission, obtaining all necessary University approvals and formally submitting the completed application to the funding agency.
5. Assisting in the administration of externally sponsored programs by providing post-award support services to grant recipients.

OFFICE OF INTERNATIONAL PROJECTS

Director: **Pending**
308 Goodison (487-0370)

THE OFFICE OF INTERNATIONAL PROJECTS has provided a new dimension of recognition both nationally and abroad for Eastern Michigan University. Working in cooperation with the United States Agency for International Development, the office currently administers the Yemen Basic Education Development Project in the Yemen Arab Republic. International Projects is also the University contact and support office for sponsored foreign students.

In addition to management, budgeting and monitoring of the project contracts,

the office also provides necessary campus support for the field activities by giving selected faculty the opportunity to grow professionally and expand their expertise through direct involvement in the projects abroad. University staff and students also benefit through the opportunity to work and study with students from other parts of the world who come to EMU's campus to study. Continuing program development provides graduate and undergraduate study related to the developmental issues in the countries being assisted.

MICHIGAN CONSUMER EDUCATION CENTER

Director: **Pending**
207 Rackham (487-2292)

The Michigan Consumer Education Center, established in 1973, is a state-wide professional development center in consumer and economic education. Its objects are to provide:

program development services, including courses, conferences and publications for educators; consultant and cooperative activities with education, business, labor, government, clergy and community consumer organizations; clearinghouse of educational resources in consumer and economic education.

The center's programs are interdisciplinary in focus, involving faculty from all colleges within the University. Administratively housed in the College of Education, the center has received program funding from external sources (public and private) in excess of \$1,000,000 since 1973. Among the center's patrons are students and faculty at this and other universities, classroom teachers (elementary through adult) and representatives of business, labor, government, clergy and community groups.

The center houses the nation's leading collection of consumer education resources. A 1982 center publication, *Classification of Concepts in Consumer Education*, is distributed internationally for use by educators in program planning and curriculum development.

The center maintains networks with leaders in consumer affairs at the local, state and national levels through advisory groups, newsletters and profes-

sional associations and is an affiliated center of the Joint Council on Economic Education.

OFFICE OF PUBLIC INFORMATION AND PUBLICATIONS

Director: **Kathleen D. Tinney**
3rd Floor, Snow (487-4400)

The Office of Public Information and Publications encompasses the University News Bureau, the Sports Information Office, the University photographer and University Publications. Staff members offer professional assistance and counsel to the campus community in public relations and media relations.

The News Bureau is the focal point for all contact with the news media. University events and activities are publicized through this office, and inquiries of reporters generally are directed here. The News Bureau also coordinates internal campus communication and is responsible for "Focus EMU," a weekly bulletin for faculty and staff, and "EMU Today," a daily news bulletin. For daily calendar events, call the News Information Line: 487-2460.

The Sports Information Office disseminates all news and printed materials relating to athletic activities and serves as the central source of statistical information pertaining to athletics. Sports Information also serves as the official University host to all media visitors attending University athletic events. For up-to-the-minute sports information, call 487-3279.

The University photographer provides black and white and color photographs and slides for news and sports releases, slide shows, displays and University publications.

University publications are produced through the University Publications Office, located in the lower level of Dining Commons #1. Complete editorial, design, typesetting, copying and printing services are available to University departments, faculty, staff and students.

INSTITUTE FOR THE STUDY OF CHILDREN AND FAMILIES

Director: **Patricia Ryan**
Associate Directors: **Angelo Angelocci**
and **Bruce Warren**
102 King (487-0372)

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

Within the focus of the institute are research, development projects, non-credit educational activities and consultations that are concerned with the determinates and/or consequences of childhood or family life. The institute promotes and encourages the interdisciplinary study of children and families. This reflects the institute philosophy that advancement of knowledge about children and families takes place only by the cooperative interaction and exchange of ideas by faculty and staff from throughout the University.

In addition to encouraging interdisciplinary involvement, various opportunities exist for undergraduate and graduate students who have interest in research or demonstration projects relating to children and families. This cooperative interaction extends beyond the University to other organizations, agencies and institutions.

Examples of institute-sponsored programs include the National Foster Care Education Program, Behavioral Medicine and the Contemporary Parenting Education Program. Cooperative efforts also are exemplified by workshops sponsored with other University departments dealing with cultural diversity and home/school interaction. For further information, phone 487-0372, or come to the office at 102 King Hall.

CLOSED-CIRCUIT TELEVISION

Many University buildings are linked by coaxial cable in a closed-circuit television system which has been in operation since 1960. Closed-circuit TV ("KITS"—Campus Instructional Television System) is used for direct instruction, observation and demonstration. Color-equipped television production studios are located in the Ford Building. The University also provides "KATS"—Campus Antenna Television System, which feeds a university cable linkage to the apartments in Brown-Munson, Pine Grove and Cornell Courts; the lounges in other residence halls; McKenny Union and the Huron Hideaway. This system provides commercial channels, public broadcasting channels, FM radio and one channel reserved for broadcasting the on-campus laboratory productions of television classes and other programs specifically intended for the University community.

STUDENT REFERENCES

Dean of Students: Bette White
202 Goodison Hall (487-3116)

OFFICIAL POLICIES regarding student/student organizations' conduct, judicial structure and grade grievance procedures are established by the University's Board of Regents. Copies of the Conduct Code and Judicial Structure for Students and Student Organizations and the Grade Grievance Procedures may be obtained in the Dean of Students Office.

Section I. CONDUCT CODE FOR STUDENTS

A. UNIVERSITY-WIDE REGULATIONS

The following conduct, should it take place on University owned or controlled property or at a University sponsored or supervised event may result in disciplinary action by the University, including dismissal from the University.

1. **Use of Alcohol.** Consumption or possession of alcoholic beverages by persons under 21 years of age. Consumption or possession of alcoholic beverages by any person at any place or at any time where not specifically permitted by University policy or regulation.
NOTE: Transportation in sealed containers to and from an authorized area or place is permissible if the person in possession has attained the legal age as prescribed by Michigan law for the legal possession of alcoholic beverages.
2. **Drugs**
 - a. **Drug Distribution.** Distribution of narcotic or drug substance in violation of local, state, or federal drug or narcotic laws.
 - b. **Drug Usage.** Use or possession of any drug or narcotic in violation of local, state, or federal drug or narcotic laws.
3. **Property**
 - a. **Theft** of University property or property of a member of the University or visitor.
 - b. **Damage,** destruction or defacement of University property or property of a member of the University or visitor.

- c. **Wrongful appropriation** of University property or property of a member of the University or visitor.
 - d. **Unauthorized possession** of University property or property of a member of the University or visitor.
4. **University Facilities**
 - a. **Unauthorized use** (including entry to, occupation of, or blocking ingress or egress) of University facilities such as but not limited to buildings, classrooms, hallways, entryways, conference rooms, campus grounds, as well as unauthorized use of vehicles, equipment, services, or University name or logo (including University Computing Center).
 - b. **Gambling** on campus for money or other things of value except as provided by law.
 - c. **Pets:** Dogs, cats, reptiles, or other animals are prohibited in University buildings or on University grounds, except where properly authorized.
 5. **Disruptive Conduct**
 - a. **Active participation** in or instigation of disruption or obstruction of any University activity.
 - b. **Disturbance** of or harassment of any member of the University community or visitor.
 6. **Physical Abuse**
 - a. **Physical abuse** or threat of physical abuse or unwarranted inflammatory provocation to physical abuse against any member of the University community or any person on University property or conduct which threatens or endangers the mental or physical health or safety of any such person.
 - b. **Sexual harassment** means unconsented physical contact of a sexual nature, unwelcome sexual advances, unwelcome requests for sexual favors and other verbal or physical conduct or communications constituting sexual harassment.
 7. **Falsification of Records**
 - a. **Furnishing false** information to the University.
 - b. **Forgery, alteration** or improper use of University documents, records, or identification.
 8. **Firearms, Weapons, and Explosives**
 - a. **Possession or use** of firearms and other weapons.
 - b. **Possession or use** of firecrackers, gunpowder, explosives or incendiary devices, or other materials which endanger health or safety.

9. **Fires or Fire Alarm Systems and Equipment**
 - a. **Tampering with or misuse** of fire alarm systems or firefighting equipment.
 - b. **Intentionally or recklessly** burning or setting fire to or in any building or starting unauthorized fire on University property.
10. **Academic Dishonesty**
Students are not to engage in any form of academic dishonesty including, but not limited to, plagiarism, alteration of records, substitution of another's work representing it as the student's own, and knowingly assisting another student in engaging in any such activity. For purposes of this section, plagiarism is defined as the knowing use, without appropriate approval, of published materials, expressions or works of another with intent to represent the material(s) as one's own.
11. **Other University Regulations:**
Violation of any other published or posted University regulations, including but not limited to:
 - a. EMU policy manuals;
 - b. Terms and conditions of the Residence Hall Contract;
 - c. EMU published undergraduate and graduate catalogs;
 - d. Rules and regulations specific to University buildings.

B. OFF-CAMPUS CONDUCT

Individual or group conduct described in the regulations in Part A which occurs off-campus may also result in disciplinary action by the University when:

1. such conduct has or tends to have a substantial adverse impact on the interest of the University or an individual within the University community, AND
2. there is a showing to that effect to the satisfaction of a University hearing board to which the case is referred.

Section II. CONDUCT CODE FOR STUDENT ORGANIZATIONS

Recognized student organizations have considerable freedom to accomplish their goals. However, they

must conform to the policies, regulations and procedures for student organizations and the Code of Conduct. Any group in violation of these standards is subject to disciplinary action. Original jurisdiction for conduct cases for all recognized student organizations is held by the Dean of Students Office.

A. UNIVERSITY-WIDE REGULATIONS

The following conduct, should it take place on University owned or controlled property or at a University sponsored or supervised event, may result in disciplinary action by the University, including separation from the University.

1. **Non-Discrimination by Organizations**

a. **Every student organization**

registered and approved by the University is expected to be free to select its membership upon the basis of individual merit. Any student organization selecting its membership upon the basis of restrictive clauses involving race, religion, color, national origin, sex, age or handicap will be considered to be operating in conflict with the University policy.

b. **Exceptions to this policy** include religious qualifications which may be required by organizations whose aims are primarily sectarian, and social fraternities and sororities that are permitted by federal and state law to discriminate on the basis of sex.

c. **Should a student organization** be in conflict with the University policy in the selection of its members, the group will be asked to submit evidence that action has been or is being taken to remove such restrictive membership provision; such as a request for a waiver of the restriction from the national organization. A reasonable period of time as determined by the Dean of Students Office may be granted to remove the restrictive provisions. Continued restriction of membership by constitutional requirements or other binding enactment contrary to University policy will result in withdrawal of University registration of the student organization.

2. **Property**

a. **Theft** of University property or property of a member of the University or visitor.

b. **Damage**, destruction or defacement of University property or property of a member of the University or visitor.

c. **Wrongful appropriation** of University property or property of a member of the University or visitor.

d. **Unauthorized possession** of University property or property of a member of the University or visitor.

3. **University Facilities**

a. **Unauthorized use** including entry to, occupation of, or blocking ingress or egress of University facilities such as but not limited to buildings, classrooms, hallways, entryways, conference rooms, and outside grounds as well as unauthorized use of vehicles, equipment, services or University name or logo (including University Computing Center).

b. **Misuse** of University facilities, vehicles, equipment, services or University name or logo including but not limited to use for purposes other than intended for or authorized.

4. **Falsification of Records**

a. **Furnishing false information** to the University.

b. **Forgery**, alteration or improper use of University documents, records or identification.

5. **Disruptive Conduct**

a. **Active participation** in or instigation of disruption or obstruction of any University activity.

b. **Disturbance** of or harassment of any member(s) of the University community or any person(s) on campus in an official capacity or visitor(s).

6. **Physical Abuse**

a. **Physical abuse** or threat of physical abuse or unwarranted inflammatory provocation to physical abuse against any member of the University community or any person on University property or conduct which threatens or endangers the mental or physical health or safety of any such person.

b. **Sexual Harassment** Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct or communications constituting sexual harassment as defined and otherwise prohibited by state or federal statutes.

c. **In cases where** the activity is performed by an individual member of a student organization, the total organization may be held responsible when those members not directly involved participate in said activity by encouraging, witnessing or con-

doning the act in any manner.

7. **Hazing**

a. **Eastern Michigan University** students as individuals or members of registered student organizations are expressly forbidden from engaging in hazing. Initiation into University organizations is permissible excluding any activities construed as hazing.

b. **Hazing shall be defined** as the performing of an act or insisting that another, including the initiate, perform an act for initiation individually or with any student or other organization which may cause or create an unnecessary risk or cause mental or physical harm to any person or which is not deemed socially acceptable.

Such acts include, but are not limited to: requiring an initiate to consume alcohol or any other substance, preventing an initiate from having at least six hours sleep in any 24-hour period, branding, paddling, causing excessive fatigue—mental or physical, expecting participation in any activity in which full members will not participate, engaging in acts which cause embarrassment, humiliation, discomfort, pain, fright or injury or which violate any federal, state or local statute or University policy.

c. **In cases where the activity is performed** by an individual member of a student organization, the total organization may be held responsible when those members not directly involved participate in said activity by encouraging, witnessing or condoning the act in any manner.

d. **Any individual and/or organization found guilty** of hazing will be subject to a minimum penalty of suspension.

8. **Other University Regulations**

Violation of any other posted or published University regulations, including but not limited to:

- EMU policy manuals;
- Terms and conditions of the Residence Hall Contract;
- EMU published bulletins;
- The *Eastern Echo*;
- Rules and regulations specific to University buildings;
- Campus Life Council regulations and guidelines for organizations;
- Student Government monetary allocation guidelines.

B. OFF CAMPUS CONDUCT

Conduct described in the regulations in Part A which occurs off-campus may also result in disciplinary action by the University under the same provisions as the individual Conduct Code.

C. Nothing in the foregoing shall subject an organization to liability under the provisions of this code for the acts of individuals unless such acts are committed under the formal or informal sponsorship, authority, direction, or as a group action of the organization.

Section III. JUDICIAL STRUCTURE FOR STUDENTS AND STUDENT ORGANIZATIONS

A. PROCEDURAL RIGHTS OF THE STUDENT/STUDENT ORGANIZATION

1. The student/student organization **shall have the right** to remain silent.
2. The student/student organization **shall have the right** to a voluntary adviser of their choice. Such adviser shall be selected from the University community and may participate in the disciplinary proceedings. The student **shall also be informed** by the dean of students that assistance is available through Student Government's Student Defender's Union. The student shall be informed of the availability of such assistance prior to the discipline process when applicable. **When criminal prosecution is pending** on charges stemming from the same incident, the student/student organization shall have a right to engage an attorney, at their own expense, of their choice to be present at a University hearing. The attorney shall not represent the student/student organization nor be a participant in the hearing but shall be permitted to consult with the student/student organization at all stages of the proceedings.
3. The student/student organization **shall be presented** with a written statement of the charges against them prior to the commencement of the disciplinary process.
4. The student/student organization **shall be presented** with a written list of their rights. Rights 1-4 shall ex-

tend to all judicial proceedings, all investigations conducted by the Dean of Students Office and before any statement is made to the Dean of Students Office.

5. The student/student organization **may confront** their accuser and are guaranteed the right to cross-examine all those testifying against them.
6. The student/student organization **shall have the right** to bring witnesses to testify in their defense. The University Judicial Board and the Judicial Appeals Board shall have the authority to limit the number of witnesses by a two-thirds (2/3) vote of those members present, in order to avoid dilatory tactics.
7. The student/student organization **shall have the right** to an open or closed hearing at their discretion. A hearing shall be deemed to have been open if provision for twenty (20) spectators was made in the hearing room and no person was excluded until the room's capacity was reached except for sequestration or if such person's behavior was disruptive of the atmosphere for the conduct of a fair hearing. A closed hearing means participants only: student(s)/student organization(s) charged, adviser(s), dean of students and/or designee(s), witnesses, members of the board.
8. The student/student organization **may submit** to the Dean of Students, University Judicial Board or the Judicial Appeals Board, in writing, a supportive report of any individual or organization who chooses to intervene in their behalf.
9. The student/student organization **shall have the right** to challenge for cause any member of the University Judicial Board or Judicial Appeals Board. Each body shall determine the validity of such challenges.
10. **No member** of the University Judicial Board or Judicial Appeals Board who is involved with the investigation of a case or is a party to the case shall sit on the Board while the case is being heard. Rights 5-10 shall extend to all cases before the University Judicial Board or Judicial Appeals Board.
11. **With the assistance** of the Dean of Students Office, the University Judicial Board and the Judicial Ap-

peals Board must keep official records of each case which the student/student organization may examine.

B. DEAN OF STUDENTS OFFICE

1. **The dean of students** shall have the power to investigate each student/student organization disciplinary case.
2. **After investigation**, the dean of students will make one of the following decisions:
 - a. charge the student(s)/student organization with misconduct and assign a penalty;
 - b. charge the student(s)/student organization with misconduct and refer the case to the UJB for action;
 - c. refer the case to the UJB for review and action;
 - d. not charge the student(s)/student organization.
3. **In all cases** where a student/student organization is charged, a written notice shall be prepared by the Dean of Students Office and served on the student(s)/student organization involved. It will satisfy this provision if such a notice is given to the student/student organization's last known address registered with the University. The notice shall include the following:
 - a. **A recitation of the facts** which surround the violation giving, so far as possible, the date, time, and location of the behavior in question.
 - b. A recitation of the specific regulation violated.
 - c. **Any penalty assigned** or other action taken.
 - d. **The student/student organization** has ten (10) calendar days to appeal the finding in writing.
 - e. Failure to appeal the decision within ten (10) calendar days shall result in the penalty taking effect.
4. **When a case** is taken to the University Judicial Board (or Judicial Appeals Board), the complaint should be submitted in writing to the hearing board by a representative from the Dean of Students Office or by an appointee of the Dean of Students Office.
5. **In case of a hearing** before the University Judicial Board (or Judicial Appeals Board), the Dean of Students Office shall notify the student(s)/student organization involved of the date, time, and place

of the hearing and/or pre-hearing conference. The date of the pre-hearing conference shall not be less than two (2) days prior to the date of the hearing—except by mutual consent.

C. PRE-HEARING CONFERENCE

At least two days prior to any hearing by the University Judicial Board or hearing officer, the dean of students shall schedule a pre-hearing conference for any student(s)/student organization charged with conduct violations. Such conference shall be attended by:

1. **The presiding officer** of the University Judicial Board (or Judicial Appeals Board), or the hearing officer or a designee of one of these officers.
2. **The dean of students** or his/her designee and may be attended by:
 - a. **Any employee** of the University who may be designated to represent the University.
 - b. **The student(s)/student organization** involved.
 - c. **Any member** of the University community in good standing selected by the student(s)/student organization to serve as adviser or representative.

The purpose of such conference shall be to identify those issues and facts which will be presented at the hearing, to exchange information as to witnesses likely to be called, to answer procedural questions so far as possible, and to settle those matters which may be agreeably concluded. This conference will not determine questions of innocence or guilt or recommendation of penalty. The failure of the student/student organization or their adviser or representative to appear shall in no way affect any procedural rights of the student/student organization in subsequent disciplinary proceedings and such failure will not prohibit a hearing from being set and a hearing being held.

D. THE UNIVERSITY JUDICIAL BOARD

1. Composition

- a. **The University Judicial Board** shall consist of five (5) enrolled students and two (2) alternates, two (2) full-time faculty members and one (1) alternate, and two (2) full-time members of the University community and one (1) alternate

(which includes current faculty, staff, employees, and students.)

- b. **No member** shall be on any probationary status and no member shall have any pending disciplinary action which may lead to a change of status.
2. **Selection of Members**
 - a. **The student members** shall be appointed by the Student Senate as directed by their constitution and bylaws, with one student member from the Office of Campus Life.
 - b. **The faculty members** shall be selected by the Faculty Council.
 - c. **The president** or his/her designee shall appoint the members from the University community.
 3. **Term of Office**
 - a. **Members shall be appointed** for up to a two year period. They may be reappointed by the person or body who appointed them.
 - b. **Members may be removed** from the board for poor attendance by a simple majority vote of the total board.
 4. **The chief justice** shall be elected from within the body by a majority of the body.

E. JURISDICTION OF THE UNIVERSITY JUDICIAL BOARD

1. **The University Judicial Board** shall have original jurisdiction in all cases involving violations of University regulations.
2. **The University Judicial Board** shall exercise superintending control if there is probable cause to believe that elementary principles of fairness and justice are being or will be violated.

F. APPEALS TO THE UNIVERSITY JUDICIAL BOARD

All appeals to the University Judicial Board shall be governed by the following:

1. **Appeal may** be granted on any basis.
2. **Appeals shall be** made to the University Judicial Board in writing to the Dean of Students Office.
3. **The University Judicial Board** shall decide whether or not to hear the case by majority vote.
4. **All cases** shall be heard from the beginning.
5. **Upon motion** of the student/student organization party, any case may be

removed directly to the Judicial Appeals Board, which shall assume original jurisdiction.

G. PROCEDURE OF THE UNIVERSITY JUDICIAL BOARD

1. **Prior to any discipline hearing**, a pre-hearing conference will be held (see Item C., Pre-Hearing Conferences).
2. **Quorum**
A **quorum** shall exist with the presence of six (6) members.
3. **Disposition of Cases**
 - a. **A simple majority** of the board members present shall be required for any action taken.
 - b. **Decisions** of the University Judicial Board shall be in writing. The decision shall be based on the evidence presented. The decision shall state what rule was violated, the behavior constituting the violation and if known, the date, time, and place of the violation. Within forty-eight (48) hours, the decision will be submitted in writing to the dean of students for mailing to the student/student organization's last known address. Also a copy will be sent to the Judicial Appeals Board.
 - c. **All decisions** of the University Judicial Board shall be final and shall be implemented after five (5) working days, unless appealed/or as provided under Section V, Item A. These decisions may be appealed by either party to the Judicial Appeals Board. The appeal must be in writing to the chairperson of the Judicial Appeals Board and delivered to the Dean of Students Office within five (5) working days from the date of the decision.
 - d. **The University Judicial Board** shall have authority to decide on penalties sanctioned by the University (see Section IV) and/or other action deemed appropriate.

H. JUDICIAL APPEALS BOARD

1. Composition

- a. **The Judicial Appeals Board** shall consist of two (2) enrolled students, two (2) full-time faculty members and two (2) full-time members of the University community.
- b. **No member** shall be on any probationary status, and no member shall have any pending disciplinary

action which may lead to a change of status.

2. Selection of Members

a. **The student members** shall be appointed by the Student Senate as directed by their constitution and by-laws.

b. **The faculty members** shall be selected by their Faculty Council.

c. **The president** or his/her designee shall appoint the members from the University community.

3. Term of Office

a. **Members shall serve** for up to a three year term. They may be reappointed by the person or body that appointed them.

b. **Members may be removed** from the board for poor attendance by a simple majority vote of the total board.

4. Chairperson

The chairperson of the Judicial Appeals Board shall be elected by a majority vote of the board.

I. JURISDICTION OF THE JUDICIAL APPEALS BOARD

1. **The Judicial Appeals Board** shall have appellate jurisdiction in all cases heard before the University Judicial Board and shall have original jurisdiction on the motion of the student/student organization party in any case.

2. **In the event** the University Judicial Board shall fail to convene and decide any case within a reasonable time, the Judicial Appeals Board will have the power to assume jurisdiction.

3. **The Judicial Appeals Board** shall exercise superintending control over lower courts if there is probable cause to believe that elementary principles of fairness and justice are being violated or will be violated.

J. APPEALS TO THE JUDICIAL APPEALS BOARD

1. Student/student organization **appeals or administrative appeals shall be made in writing** to the chairperson of the Judicial Appeals Board and submitted to the Dean of Students Office within five (5) working days. In case of administrative appeal, the student/student organization involved shall be notified at least five (5) working days prior to their hearing before

the Judicial Appeals Board.

2. **All cases on appeal** will be heard from the beginning.

K. PROCEDURE OF THE JUDICIAL APPEALS BOARD

1. **Prior to any discipline hearing**, a pre-hearing conference will be held (see Item C., Pre-Hearing Conferences).

2. Quorum

A quorum shall exist with the presence of any four members.

3. Disposition of Cases

a. **A simple majority** of those present shall be required for any action taken by this board.

b. **Decisions** of the Judicial Appeals Board shall be in writing. The decision shall be based on the evidence presented. The decision shall state what rule was violated and if known, the date, time, and place of the violation.

c. **Decisions** of the Judicial Appeals Board shall be submitted to the president for review with copies to the Dean of Students Office, University Judicial Board, and the student(s)/student organization.

d. **The president** will make the final decision by accepting, modifying, or rejecting the Judicial Appeals Board decision. If the decision is modified or rejected, then the president shall provide the student(s)/student organization and the Judicial Appeals Board with the reason(s) for the modification or rejection in writing.

e. **Judicial Appeals Board and/or presidential decisions shall be in writing** with specific factual findings, citing rule(s) violated and setting forth discipline to be imposed, if any.

f. **For cases** on which there has been **no presidential action within five (5) working days** after submission, the Judicial Appeals Board decision is deemed to be approved.

g. **All decisions approved and permitted to stand shall become effective immediately.**

h. **Decisions shall be made in writing** and made available to the student/student organization on the first day following Judicial Appeals Board action and following acceptance by the president or his/her designee. In cases permitted to stand without presidential action, the deci-

sion shall be made available to the student/student organization no later than the sixth (6th) working day following the submission for review of the decision of the Judicial Appeals Board.

i. **Application for additional review** and modification of the Judicial Appeals Board and presidential decision may be made to the Board of Regents through the secretary of the Board of Regents. The Board of Regents, at its discretion, may agree to review the findings and decision of the president or the Judicial Appeals Board.

L. ALTERNATE HEARING PROCEDURE

1. In the event the University Judicial Board **shall fail to convene** and/or act within a reasonable time, the president shall be authorized to refer the case directly to the Judicial Appeals Board.

In the event the Judicial Appeals Board **shall fail to convene** and/or act within a reasonable time, the president shall be authorized, after consultation with and approval by the Board of Regents, to appoint a hearing officer, not otherwise employed by the University, who shall conduct such hearings and perform the functions otherwise specified for the Judicial Appeals Board. The hearing officer shall submit his/her findings and recommendations to the president or his/her designee in the same manner and within the time as required for the Judicial Appeals Board.

2. Discipline by Administrative Action

It is the policy and practice of the University to handle disciplinary cases administratively without involvement of the student/student organization judicial systems when the judicial bodies are not in session.

Section IV. PENALTIES FOR MISCONDUCT

Discipline is intended to be corrective and educational as well as punitive. It is intended that the student(s)/student organization will learn from the disciplinary experience and develop a more mature attitude toward group living problems. The penalties which

may be incurred include, but are not limited to, the following:

A. PENALTIES FOR STUDENTS

1. Reprimand

An official written statement of the University's disapproval of an individual or group action.

2. Administrative Warning

Will be issued to students for lesser offenses than those subject to administrative probation. A breach of conduct will be viewed not only as the breach of conduct itself but a violation of this warning, which may result in dismissal.

3. Administrative Probation

Defines the student's status to be conditional and may require exclusion from some programs and curricular or extra-curricular activities. In each case, the length and nature of the exclusions, if any, shall be determined according to the nature of the offense. Any breach of conduct while on administrative probation will be viewed not only as the breach of conduct itself, but a violation of probation which may result in dismissal.

4. Suspension

Suspension is an involuntary separation of the student from the University which may extend for one semester, until a specified date, and/or until a stated condition is met.

5. Dismissal

Dismissal, like suspension, involves separation from the University but it is for an indefinite period of time.

In case of a judicial decision requiring that a commitment or action or other stated condition be met by a student, the person or body setting this condition shall be responsible for making their expectations clear to the student and for superintending and monitoring its implementation.

B. PENALTIES FOR STUDENT ORGANIZATIONS

1. Reprimand

An official written statement of the University's disapproval of an individual or group action.

2. Administrative Warning

Issued to student organizations for lesser offenses than those subject to administrative probation. Any breach of conduct will be viewed

not only as the breach of conduct itself, but a violation of this warning, which may result in suspension of said organization's status as a student organization.

The misconduct may be reported to said organization's national office, if applicable.

3. Administrative Probation

Defines the student organization's status to be conditional and may require exclusion from campus activities, forfeiting of student monetary allocations, and withdrawal of Campus Life status for a minimum of one semester. Any breach of conduct while on administrative probation will be viewed not only as the breach of conduct itself, but a violation of probation which may result in suspension of said organization's status as a student organization.

4. Suspension or Termination

The involuntary withdrawal of status of the student organization from the University permanently, for a specified period of time and/or until a stated condition is met. During this period the University will not in any way recognize nor support the continued operation of said organization. The student organization must re-apply to the Office of Campus Life for renewed recognition following any period of suspension. The suspension action shall be reported to said organization's national office, if applicable.

Action taken against a student organization may also result in separate action being taken against individual members of said group, when appropriate. In this case, the sections of the conduct code referring to student conduct will be applied.

Section V. PRESIDENTIAL RESPONSIBILITY

A. PRESIDENTIAL REVIEW

1. **The authority to suspend** or dismiss a student/student organization from the University for conduct in violation of University rules and regulations is vested in the president as the chief executive officer of the University or in his/her designated representative.

2. **All disciplinary penalties** assigned through the University judicial and

review system which would result in suspension or dismissal of a student/student organization from the University shall be reviewed by the president or his/her designee.

3. **The president or his/her designated representative may:**

a. **Accept** the decision of the judicial review system or

b. **Reject** the decision. If the decision rejected is:

(1) **A dean of students decision**, the rejection will constitute an automatic appeal to the University Judicial Board.

(2) **A University Judicial Board decision**, the rejection will constitute an automatic appeal to the Judicial Appeals Board.

(3) **A Judicial Appeals Board decision**, the procedure stated in Section III, Item K. 3 b, c, will be followed.

B. INTERIM SUSPENSION

The president, as chief executive officer of the University, is directly responsible to the Board of Regents for the enforcement of the University policies, rules, and regulations and is charged with the maintenance of that degree of order and safety necessary to the successful continuation of the University's lawful mission, and he/she is further charged with the authority to protect the members of the University community and University property.

Although such authority has always existed in the office of the president, it is herein made explicit that the president or his/her designated representative is authorized to suspend a student/student organization prior to a hearing and procedure through the University judicial process when in the judgment of the president or his/her designated representative, the misconduct of the student/student organization threatens or endangers University property, and that such student's/student organization's continued presence on campus creates a clear and present danger to the safety of students, faculty, administrators, and University property and/or which constitutes an interference with the maintenance of the University's educational processes and missions.

The student/student organization shall be **notified** of their suspension status orally, by **written notice served** on the

student/student organization or **written notice sent** to the last address on record. Within five (5) days after the notice, the student/student organization shall be provided with the opportunity for an informal hearing before the president or his/her designee. At this hearing, the student/student organization shall be permitted to present their side of the story. After the hearing, the president or his/her designee may lift suspension and direct that a hearing follow within eight (8) days before the University Judicial Board, or maintain the student/student organization on suspension status and direct that a hearing follow within eight (8) days before the University Judicial Board.

The above provisions concerning judicial power are the official policy of the University, subject to such specific amendments as shall hereafter be made and subject to those exceptions to these procedures implicit in the emergency powers of the president. Nothing in the above shall be construed as affecting the standards of conduct or rules of behavior as established by the regents.

All publications of the University which contain rules and procedures other than the above which describes the judicial structure or the procedures of student/student organization courts, Greek courts, or residence hall courts shall not be construed as controlling those courts, but rather shall be merely descriptive of the system and procedures which the student/student organizations have themselves enacted as controlling their institutions.

C. EMERGENCY POWERS OF THE PRESIDENT

When faced with mass disruptions, activity of a violent and destructive nature, or other dangerous violations of University rules, the president may take note in a general statement of the seriousness of the threat to the University. As chief executive officer of the University, the president is charged with the maintenance of that degree of order necessary to the successful continuation of the University's lawful mission. Such responsibility carries with it the necessity for a certain degree of authority. Such authority has always existed in the office of the president. It is herein made explicit but to the extent that the courts of the land may deem such

authority to be inherent or implicit, it is not limited.

The president, after consultation with and approval of the Board of Regents, may:

1. **Impose and have enforced** a curfew on all or portions of the campus of the University.
2. **Curtail** or suspend services.
3. **Close** the University or portions of the University entirely for the period of emergency.
4. **Suspend** students/student organizations and forbid their presence on campus if they have been sufficiently identified to him/her as participants in activities violative of University policy leading to the conditions described above. Suspensions shall continue for the period of emergency.
5. **Appoint** a hearing board on an *ad hoc* or extraordinary basis to make a recommendation as to whether individual interim suspension shall be continued. Such a hearing board shall convene and make its recommendations within (10) days from the effective date of the interim suspension.

In making more explicit the authority of the president to take necessary actions in the interests of the University, the Board of Regents in no way restricts its own powers and prerogatives to carry out its obligations and duties as imposed by the constitution and laws of the state of Michigan.

Grade Grievance Procedure

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

students or an entire class are not permitted.

STEP I - INSTRUCTOR AND STUDENT (Informal)

If a student wishes to appeal a final grade, the student must contact the instructor **within FIVE (5) WORKING DAYS** after the start of the next semester; i.e., the semester following the one in which the disputed grade was given (see general notes for the spring-summer policy). If the instructor is teaching on campus the next semester, but is temporarily unavailable or simply cannot be reached during this five-day period, then the student should deliver a written request for an appointment with him/her, stating the reason, to the department head no later than the final day of the five (5) day period. With the aid of the department head in scheduling an appointment, the instructor and student must then meet as soon as possible and discuss the disputed grade privately. Whenever possible, conflicts over grades should be resolved informally between the instructor and the student as a result of this STEP I discussion.

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

STEP II - DEPARTMENT GRADE GRIEVANCE COMMITTEE (Formal)

If the grade dispute is not resolved in Step I to the student's satisfaction and he or she still believes that the grievance

has merit based on the facts of the case, the student has the right to file a formal written grievance to the department head who will forward it immediately to the Department Grade Grievance Committee. Guidelines for filing a formal grievance are as follows:

1. **A grievance must be based on** evidence that the instructor has been capricious and/or unfair in awarding a grade. The written grievance must describe specifically the perceived capricious or unfair action of the instructor. The student should also present all other evidence or documentation in support of his or her allegations. Disagreement with an instructor's judgment in and of itself is not basis for a grievance, nor is disagreement with an instructor's grading standards, if such standards have been described in advance for the class, and have been applied fairly to all students in the class.
2. **A grievance must be filed within FIFTEEN (15) WORKING DAYS** after the start of the next semester following the one in which the disputed grade was given.

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

department head shall not communicate his/her opinions/judgments regarding the grievance and/or the discussions in the closed meeting to the members of the Department Grade Grievance Committee.

The Department Grade Grievance Committee shall be composed of three (3) faculty members and two (2) students, selected by appropriate department procedures. The student grievant, however, may request in advance in writing that the two (2) students be excused and that his or her grievance be heard only by the three (3) faculty members. The committee shall conduct a hearing according to the following guidelines:

1. a detailed record shall be kept of the hearing, preferably a taped sound recording;
2. both the student and instructor shall be permitted an adviser — advisers must be members of the University community, i.e., students or full-time faculty or staff members;
3. the hearing shall be open unless the student or instructor requests a closed hearing;
4. both the student and the instructor may call witnesses, and the student, instructor, advisers, and committee members all have the right to question any witnesses that are called; and
5. the deliberations of the committee shall be in executive session.

Within FIVE (5) WORKING DAYS of the date of the hearing, the Department Grade Grievance Committee shall present its decision/recommendations in writing to the department head for immediate distribution to the student and the instructor.

Either the student or the instructor may appeal the decision/recommendations of the Department Grade Grievance Committee to the University Grade Grievance Committee, under the conditions listed below. This appeal must be filed **within FIVE (5) WORKING DAYS** of receipt of the decision.

STEP III - UNIVERSITY GRADE GRIEVANCE COMMITTEE (Appeal)

Either the instructor or the student grievant may submit a written appeal of the prior decision at STEP II by the

Department Grade Grievance Committee **within FIVE (5) WORKING DAYS** of written receipt of that decision, if one of the following conditions is met:

1. there was at least one dissenting vote at the STEP II level; or
2. new evidence or new witnesses not previously considered or heard at STEP II become available.

In the absence of (1) or (2) above, simple disagreement with the decision rendered at STEP II is not a sufficient basis for an appeal. In other words, there is no automatic right of appeal in every case requiring that the University Grade Grievance Committee reconsider the entire grievance case. If the appeal is based on new evidence or new witnesses, the written appeal statement must explain precisely how this evidence or testimony relates directly to the alleged unfair or capricious awarding of the disputed grade. The appeal shall be submitted to the associate provost with a copy to the dean of the appropriate college.

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

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

Within TWENTY (20) WORKING DAYS of the receipt of the appeal, the University Grade Grievance Committee shall issue a written STEP III decision to both the instructor and the student. This decision shall be final; no further appeal is possible.

RECORDS

When the Grade Grievance Procedure results in an instructor's grade being

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

GENERAL NOTES

1. **The time limits/deadlines** for submitting grievances/appeals, holding meetings, and making decisions are to be followed by all parties. However, extensions of the time limits not to exceed five working days may be requested in writing by any of the involved parties. Such requests must originate prior to the expiration of the stated time limit. The dean of the involved college will make the decision to approve or to deny each request for a time limit extension at STEP I or STEP II. Decisions regarding STEP III time limit extensions will be made by the Provost. "Working days" are defined as Monday through Friday while classes are in session.
2. **Each academic department** shall select a Department Grade Grievance Committee at the beginning of the academic year in September. This committee will hear all grade grievances during the next 12 months, rather than selecting a different committee for each grade grievance. Substitute members shall be selected to replace any committee member who is himself/herself involved in a grade grievance. Also substitute members shall be selected to replace any committee member (faculty or student) who is unavailable for an extended period of time (e.g., spring and/or summer).
3. **Each College** shall select two (2) faculty members plus one alternate who are available over a 12-month period for assignment to the University Grade Grievance Committee. These selections shall be made by the appropriate college-level faculty advisory council/committee at the beginning of the academic year in

September. Unlike the Department Grade Grievance Committee, this STEP III University Grade Grievance Committee may of necessity have a different membership for each grievance.

4. **Grievances relating to grades** awarded for the winter semester ending in April shall normally be pursued the next fall, measuring all stated deadlines with respect to the start of the fall semester in September. However, if the instructor is teaching on campus during the spring or summer session and the student is enrolled on campus during that same session, then with their mutual agreement, the grievance can be pursued during the spring or summer. However, should either the instructor or the student prefer to wait, then action of the grievance will be postponed until the fall semester. The only exception in which the grievance shall be pursued during the spring or summer session without the consent of an instructor who is teaching on campus, is for any case in which the disputed grade affects the student's plans to graduate either in August or December of that year. In such cases, if the instructor is unwilling to participate, the department head may act on his/her behalf.
5. **Throughout this procedure**, the title "department head" shall be interpreted to include "program directors" or "program coordinators" for appropriate academic units in which there is no administrator with the title department head.
6. **Students** are discouraged from seeking counsel or "off the record" opinions from deans or other senior administrators (particularly the associate provost who may become involved later if there is a STEP III appeal) while action is still pending on a grade grievance at the department level.

Student Administrative Grievance Procedure

STUDENTS MAY FILE A GRIEVANCE over a dispute arising from allegations of improper or incorrect interpretation or application of University policy, including any alleged

discrimination in the application of such policy based upon race, religion, sex, age, national origin or any other illegal discrimination as established by the state or federal regulation or law. Traditionally, those matters have been handled in the following manner:

STEP I. ADMINISTRATOR AND STUDENT (Informal)

Any student who is considering filing a grievance must first discuss the problem with the administrator or staff member whose responsibility it is to enforce the regulation or policy.

STEP II. DEPARTMENT SUPERVISOR (Formal)

If unable to resolve the dispute at this level, the student shall, if he or she wishes, carry the grievance forward by first reducing the grievance to writing, stating the nature of the grievance and what policy allegedly has been violated or incorrectly interpreted, and the date of the alleged violation or misinterpretation. This written grievance shall be presented to the head of the department, or immediate supervisor of the staff member or administrator enforcing the policy. The University shall not be expected to consider any grievance that is not submitted in writing to the department head or supervisor within twenty-one (21) calendar days of the alleged violation. Upon receipt of the written grievance, the supervisor or department head shall meet with the student (normally within one week of the receipt of the written grievance) to attempt to resolve the grievance and following such a meeting, promptly provide a written answer. No such written answer may be contrary to University policy.

STEP III. DIVISION VICE PRESIDENT

If the grievance is not resolved at Step II, then it shall be forwarded to the vice president in charge of the division in which the grievance has been filed. Usually within a week of receipt of the grievance, the vice president shall meet with the student filing the grievance and discuss the grievance. Following the discussion, the vice president shall render a decision in writing to the student.

STEP IV. PRESIDENTIAL APPEAL

If the grievance is not resolved in Step III, the student may appeal to the president of the University. As chief executive officer of the University, the president will make the final decision and he or she may consult with the Executive Council prior to making this decision. Also, the president, if he or she chooses, may elect to conduct an informal hearing with the student.

The Student Administrative Grievance Procedure is to be used for ad-

ministrative decisions only and is not to conflict with established procedures in the areas of student employment, student discipline, academic affairs, and other published University student grievance procedures.

STUDENT GOVERNMENT provides services for students seeking to file a student grievance or encountering any other problems. Information must be submitted in writing to its office in Goodison Hall.

GRADUATE FACULTY

ACCOUNTING AND FINANCE

- Anderson Loren W.** (1980) Professor; B.S., University of North Dakota; M.S., University of Pittsburgh
- Clark, George S.** (1973) Associate Professor; B.B.A., M.B.A., J.D., The University of Michigan; L.L.M., Wayne State University; C.P.A., State of Michigan
- Devine, Elton A.** (1976) Professor; B.S., M.B.A., University of Southern Mississippi; Ph.D., Louisiana State University
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- Hutchins, Ronald E.** (1977) Associate Professor; B.A., M.B.A., Michigan State University; Ph.D., University of Missouri Columbia
- Keros, John W.** (1965) Associate Professor; B.B.A., M.B.A., The University of Michigan; C.P.A., State of Indiana
- Lantz, Keith W.** (1983) Professor, Department Head; B.S., University of Wyoming; M.S., Oklahoma State University; Ph.D., University of Iowa
- Pathak, Chandra P.** (1981) Associate Professor; B.Com., Banaras Hindu University; M.Com., University Allahabad; Ph.D., University of Tennessee; C.P.A., State of West Virginia
- Rhee, Thomas A.** (1982) Assistant Professor; B.A., Hankuk University of Foreign Studies; M.A., Kent State University; Ph.D., Wayne State University
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- Avedon, Barry** (1966) Professor; B.F.A., M.F.A., Rochester Institute of Technology
- Beginin, Igor** (1968) Professor; A.B., M.A., Wayne State University
- Chew, Robert** (1968) Associate Professor; B.F.A., Maryland Institute; M.F.A., University of Illinois
- Fairfield, Richard T.** (1963) Professor; B.F.A., Bradley University; M.F.A., University of Illinois
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- Hunter, Fredrick C.** (1967) Professor; B.S., Wisconsin State University; M.F.A., University of Wisconsin
- Iden, Sheldon S.** (1968) Associate Professor; B.F.A., Wayne State University; M.F.A., Cranbrook Academy of Arts
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- Loree, John** (1962) Professor; B.S., Fordham University; M.F.A., Alfred University
- Pappas, John N.** (1960) Professor; B.F.A., M.A., Wayne State University
- Sandall, James** (1974) Professor; B.F.A., University of Nebraska; M.F.A., Arizona State University
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- Sharp, David W.** (1962) Professor; B.A., Arizona State University; M.F.A., State University of Iowa
- Smith, Doris A.** (1961) Professor; B.D., M.S.D., The University of Michigan
- Stephenson, Susanne G.** (1963) Professor; B.F.A., Carnegie Institute of Fine Arts; M.F.A., Cranbrook Academy of Art
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BIOLOGY

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- Fennel, William E.** (1970) Professor; B.A., M.A., University of Missouri; Ph.D., The University of Michigan
- Ghosheh, Najati S.** (1965) Professor; B.S., M.S. Kansas State University; Ph.D., University of Illinois
- Hannan, Gary L.** (1982) Assistant Professor; B.A., University of California-Santa Barbara; Ph.D., University of California-Berkeley
- Hurst, Edith M.** (1973) Professor; B.S., Wayne State University; M.A., Ph.D., The University of Michigan
- Jackson, Dennis C.** (1967) Professor; B.S., Arizona State University; M.S., Ph.D., Michigan State University
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- Liu, Stephen C.** (1965) Professor; B.S., M.S., National Taiwan University; Ph.D., University of Minnesota
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ART

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BUSINESS AND INDUSTRIAL EDUCATION

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ECONOMICS

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FOREIGN LANGUAGES AND BILINGUAL STUDIES

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GEOGRAPHY AND GEOLOGY

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HEALTH, PHYSICAL EDUCATION, RECREATION AND DANCE

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HUMAN, ENVIRONMENTAL AND CONSUMER RESOURCES

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INDUSTRIAL TECHNOLOGY

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MARKETING

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MATHEMATICS

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MUSIC

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- Szabo, Edward J.** (1968) Professor; B.Mus.; Cincinnati Conservatory of Music; B.S., M.S., Juilliard School of Music; M.A., Ed.D., Columbia University
- Teal, Mary D.** (1968) Professor; B.S., Northwestern State College; M.Mus., Ph.D., The University of Michigan
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OPERATIONS RESEARCH AND INFORMATION SYSTEMS

- Ahmad, Imtiaz** (1980) Professor; B.S., University of Punjab; M.Sc., Ph.D., University of Ottawa
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- Tummala, V.M. Rao** (1981) *Professor, Department Head; B.A., Andhra University, India; M.A., Gujarat University, India; M.S., Ph.D., Michigan State University*
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PHYSICS AND ASTRONOMY

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POLITICAL SCIENCE

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PSYCHOLOGY

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- Fish, Barry A.** (1970) *Professor, Department Head; B.A., The University of Michigan; M.A., Ph.D., Wayne State University*
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SOCIAL WORK

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SOCIOLOGY

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- Finkler, Kaja** (1972) Professor; B.A., Brooklyn College; M.A., Hunter College; Ph.D., City University of New York
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- Warren, Bruce L.** (1969) Professor; B.A., Alma College; M.A., Ph.D., The University of Michigan
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SPECIAL EDUCATION

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TEACHER EDUCATION

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