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## OFFICIAL PUBLICATIONS OF OAKLAND UNIVERSITY

## Oakland University Undergraduate Programs

General Catalog published annually in May.
Oakland University Graduate Programs
Graduate Bulletin published annually in November.
Oakland University Summer School
Bulletin published annually in February.

## Academy of Dramatic Art

Prospectus published annually in March.
Division of Continuing Education
Catalog published twice yearly in September and January.

## CORRESPONDENCE DIRECTORY

Mailing address: Oakland University, Rochester, Michigan 48063. Officers of the University will be pleased to answer questions. For prompt attention address specific inquiries to the officers listed below.

Admissions Information and Bulletins
Undergraduate Students - Director of Admissions
Graduate Students - Dean of Graduate Study
Academy of Dramatic Art - Administrative Director
Business Matters
Vice President for Business Affairs
Career-oriented and Graduate Placement
Director, Placement Office
Continuing Education
Dean of Continuing Education
Educational Program, Transcripts, Academic Reports
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## OAKLAND UNIVERSTIY

GENERAL CATALOG
1972-1973

Rochester, Michigan

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Oakland University affirms that an Assurance of Compliance with Title VI of the Civil Rights Act of 1964 has been executed and is fully applicable to the policies and practices of this University. Specifically, admission to the University or employment by the University is provided to qualified persons without discrimination on the ground of race, color, religion, sex, age, national origin or ancestry.
All announcements in this catalog are subject to revision at the discretion of the University.

September, 1972
Volume XIII, No. 1
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## PROPOSED UNIVERSITY CALENDAR

1972-1973
Fall Semester, 1972
August 28, 29 Monday, Tuesday Orientation August 30, 31, September 1 Wednesday-Friday Registration September 5 Tuesday Classes begin November 23-26

Thursday-Sunday Thanksgiving recess
November 27
December 15
December 18-22

January 8
March 1-4
March 5
April 20
April 23-27
Monday Classes resume
Friday Classes end
Monday-Friday
Final examinations
Winter Semester, 1973
Monday Classes begin
Thursday-Sunday Winter recess
Monday Classes resume
Friday Classes end
Monday-Friday
Final examinations

Spring Session, 1973
April 30
Monday
Tuesday
Monday
Saturday
Wednesday
Thursday, Friday
Registration
Classes begin
Holiday
Commencement
Classes end
Final examinations
Summer Session, 1973
June 25
June 26
July 4
August 15
August 16, 17
Monday
Tuesday
Wednesday
Wednesday
Thursday, Friday

Registration
Classes begin
Holiday
Classes end
Final examinations

This calendar is subject to revision.

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## BOARD OF TRUSTEES

Oakland University is governed by an eight-member Board of Trustees appointed by the Governor. Legislation creating Oakland University as an independent institution, separate from Michigan State University, was established under Act No. 35, Public Acts of 1970. The President of the University is appointed by the Board and is the presiding officer of that body. The Board also appoints a secretary and treasurer. The following are the Board members and officers:

Mr. Leland W. Carr, Jr.
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(Helen G.)
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Mr. Ken Morris
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Mr. Alan E. Schwartz
Mr. Otis M. Smith, Chairman
Donald D. O'Dowd, President John De Carlo, Secretary Robert W. Swanson, Treasurer

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| ---: |
| Vlen Brown President for Student Affairs |
| and Dean of Students |

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Director of Admissions and Scholarships
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Director, Employment Relations

## CAMPUS DEVELOPMENT

| Glen Brown | Assistant President for Campus |
| :--- | ---: |
| Development |  |

## PUBLIC AFFAIRS

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Vice President for Public Affairs and Secretary to the Board of Trustees
Robert D. Kanter Managing Director, Meadow Brook Theatre W. W. Kent General Director, Office of Cultural Affairs and Managing Director, Meadow Brook Music Festival

Terence Kilburn<br>Associate Dean, Theatre Arts<br>and Artistic Director, Meadow Brook Theatre

Joseph L. Knapp
Director, University Relations

Oakland University as a state-supported institution has succeeded in creating a distinctive community of learning and has become a far-reaching cultural force. Today, it continues to follow the precedent it set in 1959 when it was applauded by the nation's leading academicians for its innovative approach to higher education.

As an effective community of learning, the University has no narrow bounds and its learning takes many forms. Its student body is both young and old, full-time and part-time, resident and commuter. Its diverse and astute faculty is drawn from private and public institutions throughout the nation and from many foreign countries.

The University has affected the larger community in southeastern Michigan not only through its undergraduate and graduate credit programs; its service activities and its performing arts events; but also through the multi-faceted non-credit courses, conferences, continuum center offerings and projects of the Division of Continuing Education.


Oakland University owes its inception to the generosity of Mr. and Mrs. Alfred G. Wilson, who in 1957 gave to the Board of Trustees of Michigan State University their private estate, Meadow Brook Farms, and two million dollars to assist in the foundation of a new university.

On the 1,600 -acre wooded and rolling estate are Meadow Brook Hall, formerly the Wilson home, and subsidiary residences and farm buildings.

Mrs. Wilson, widowed in 1962, was annually honored by the students on her birthday in a celebration marking their respect and affection. This happy tradition passed in observance but not in memory with Mrs. Wilson's death in 1967. The students of Oakland University expressed their sense of loss in a permanent memorial, the Matilda R. Wilson Memorial Collection in Kresge Library.

Following the Wilson endowment, President John A. Hannah and other administrative officers of Michigan State University initiated plans and designated fifty community leaders, later called the Oakland University Foundation, to support and assist in forming the emergent institution.

As Michigan State University leaders began curriculum studies, the Foundation invited twenty distinguished consultants to join both groups in a series of seminars framed to examine and assess new concepts of what a university should be. These consultants included Vassar College President Sarah Blanding, Professor Henry Steele Commager of Amherst, California Institute of Technology President Lee DuBridge, Johns Hopkins President Milton Eisenhower, Henry Heald of the Ford Foundation and Henry Luce of Time-Life publications. From these curriculum studies and consultations, Oakland University derived a conceptual identity which has shaped its growth and yet left it free to innovate.

In September, 1959, the University's first chancellor, Durward B. Varner, and a faculty of twenty-five received the charter class of 570 students. The University has since conferred over 5,000 degrees and more than 7,000 students are currently enrolled. Initially housed in three buildings, the University now has twenty-one buildings all concentrated in the northwest corner of the Wilson estate which is in the immediate vicinity of Pontiac, Michigan and 30 miles north of Detroit.

In 1963, the University's name was changed from Michigan State University Oakland to Oakland University, reflecting its maturing intellectual identity. This name change did not then affect the University's legal and administrative relationship with Michigan
State University. In 1970, however, Oakland University became by
state legislative enactment an autonomous and separate statesupported institution of higher education having its own governing body. In October, 1970, the new Board of Trustees of Oakland University appointed Chancellor Donald D. O'Dowd as the first President of the University.


OAKLAND UNIVERSITY: WITH THE FUTURE IN MIND

In keeping with the University's founders' recommendations that each student be broadly educated with a curriculum emphasizing quality and depth of study and focusing primarily on principles and basic ideas, Oakland University requires that all undergraduate students in degree programs take prescribed studies in a broad range of liberal arts and sciences.

Students may meet this requirement in a variety of ways of which the experimental Inner Colleges-Allport, Charter and New-are examples. Each of these inner colleges offers its own characteristic version of the general education requirement. This area of studies is intended to complement the undergraduate's studies in the field of his major, whether in the humanities, social sciences, mathematics, natural sciences, management, teacher education or engineering.

Oakland University has sought from its inception to use the best, most innovative and challenging ideas in higher education. Further elaborating on its commitment to the teaching of principles and basic ideas, the University continues to develop strongly interdisciplinary programs. This approach to learning is utilized in the University's African, Asian, Chinese, Latin American, Slavic and other area studies programs. The same cross-disciplinary concept of learning is used in Jinguistics, premedical studies, elementary education, social studies, management, teacher education in general, certain fields of engineering and in various courses offered by the inner colleges.

Also in keeping with the intent of the founders that students learn to educate themselves and that they should gain knowledge of other cultures, the University extends to all students in good standing the option of individual programs of independent off-campus study related to their academic courses.

Recent overseas study programs have given students the experience of in-depth learning in Mexico, Hong Kong and several countries of western Europe. New College, moreover, requires that all of its students complete a one-semester field term studying contemporary society at first hand through salaried or volunteer work in off-campus communities.

Oakland University is a university actively concerned with sharing the resources of its faculty and students, curriculum and performing arts events with the surrounding larger community. It is deeply committed in programs, activities and financial assistance to equalizing educational opportunities.

Students of the University volunteer through the Pontiac-Oakland Educational Assistance Team to serve as tutors and friends for children of several elementary schools in Pontiac. During the summer months other projects offer help to pre-college students in the form of intensive academic skill development, cultural enrichment activities, orientation and counseling.

Through its expanding Urban Affairs program, the University is broadening its involvement in the community. In 1972, Oakland University graduated its first Career Opportunities Program student. Developed to meet the educational needs of persons in low income families, COP's goal is to attract capable persons to careers in education in order to improve both education and employment opportunities for the poor.

In both the Short Term Teacher Training Program and the Pontiac Urban Corps Program, the University seeks to develop teachers who can cope effectively with the special educational problems of inner-city children. The School of Education has recently initiated a two-year Teacher Intern Program aimed at training teachers and developing new curricula with the purpose of improving the learning environment of children from low-income, rural areas.

This September, the University also opens an undergraduate study evening college program which is designed to provide educational opportunities for community members who need credit and degreeprogram offerings but cannot attend daytime classes.

Oakland University has continued to widen its scope of cultural influence in the realm of the performing arts since 1963. Seeking to make a significant contribution in the sponsorship of professional performance and in the education of professional artists, the University with the massive support of its friends in the larger community opened the Meadow Brook Music Festival in the summer of 1964.

Housed in the Howard C. Baldwin Memorial Pavilion, the festival originally presented the Detroit Symphony Orchestra in four weeks of concerts. Now internationally recognized, it brings distinguished artists and ensembles in a nine-week season of orchestral concerts, ballet and modern dance, jazz and folk music.

The University moved even further toward the creation of a nationally prominent center for the performing arts with the opening in 1967 of a resident company of professional actors, Meadow Brook Theatre.

Inversely, the effect of these activities within the University community of learning was generative of new studies in music, drama, and dance in the School of Performing Arts. In 1965 summer music institutes in choral, vocal, orchestral, and chamber music were initiated for the professional musician. For five years these institutes successfully pioneered unique concepts in summer music instruction. The School then reformulated its summer programming around new formats and objectives to include the dance, cultural arts, rock music, and other contemporary arts instruction. In 1967 the Academy of Dramatic Art was founded to give an intensive two-year professional training in techniques of acting.


Oakland University's success as an all encompassing community of learning can be measured by the substantial support the University receives through such organizations as the Oakland University Foundation and its Scholarship Committee, the Community Leadership Committee for the Meadow Brook Theatre, the Meadow Brook Festival Committee, the Friends of Oakland, the Friends of Kresge Library and the Oakland University Alumni Association.

Widespread national attention has been directed by scholars of international reputation to the quality of the University's youthful faculty, to the effectiveness of its teaching and to the innovative style of its programs.

Increasing numbers of the University's students are being sought by the nation's leading graduate schools and a number of University scholars have been honored with such marks of excellence as Woodrow Wilson National Fellowship Foundation awards.

The academic structure of Oakland University is comprised of the College of Arts and Sciences, the School of Economics and Management, the School of Education, the School of Engineering, the School of Performing Arts, the Office of the Provost and the Faculty of the Library.

Undergraduate programs in the College of Arts and Sciences lead to the degrees of Bachelor of Arts and Bachelor of Science in a wide range of departmental and interdepartmental programs in the

humanities, social sciences, mathematics and natural sciences. These programs also provide for a specialization in teacher education and premedical studies. For further information, consult pp. 90-285 of this catalog.

The School of Economics and Management offers a program in management leading to the degree of Bachelor of Science. Designed to prepare students for initial entry into many positions in business, government and administration; it may alternatively lead to entry into industry training programs or to graduate studies in management. The economics faculty of the School directs the liberal arts program in economics leading to the degree of Bachelor of Arts in the College of Arts and Sciences. For further information, consult pp. 288-307 of this catalog.

The undergraduate program of the School of Engineering leads to the degree of Bachelor of Science and prepares students for

engineering occupations in industry, government, teaching and research. Although its curriculum is not geared towards specialization on the undergraduate level, students may choose from a flexible pattern of advanced electives which prepare them for careers in electrical, mechanical and biological engineering; in systems engineering; in computer science; in materials engineering; in engineering management; and in energetics. For further information, consult pp. 337-357 of this catalog.

The Office of the University Provost is responsible for: The Department of Learning Skills (see pp. 364-366) ; the Inner College Program (Allport College, Charter College, New College, see pp. 98-107) ; and the University Courses (see pp. 93-98).

Graduate studies at Oakland University are offered in twelve programs in the College of Arts and Sciences, the School of Education and the School of Engineering. The degree programs lead to a Master of Arts in English, mathematics and psychology; a Master of Science in physics, chemistry and engineering; and a Master of Arts in Teaching in six areas. For further information, consult pp. 285, 319 and 356 of this catalog and the Graduate Bulletin.

Oakland University launches its first doctoral program in systems engineering this fall. The program, which is interdisciplinary in scope, will train engineers to work with the complex large-scale technological problems faced by our society such as transportation system planning, resource management and health-care delivery. For further information, consult p. 356 of this catalog.

The School of Performing Arts offers in the Academy of Dramatic Art a credit program of instruction requiring a minimum training period of two years and leading to a Diploma in Dramatic Art. The curriculum is designed solely for students intending careers in the professional theatre. For further information, consult pp. 362-363 of this catalog and the prospectus of the Academy. Programs in music and the dance in the School of Performing Arts are at present in a phase of transition. For further information, consult p. 361 of this catalog.

The Division of Continuing Education offers adults a wide range of non-credit courses of instruction in the fields of the liberal arts and sciences, applied arts and sciences, and business and professional development. For further information consult p. 371 of this catalog and the catalog of the Division.

## OAKLAND UNIVERSITY

## GOVERNANCE

Oakland University is an autonomous institution of higher learning established and maintained by the State of Michigan. Its governing body is the Board of Trustees of Oakland University, an eight-member board appointed by the Governor of Michigan with the advice and consent of the state Senate. The President of Oakland University is ex officio a member of the Board and its president.

## ACCREDITATION AND AFFILIATIONS

The degree programs of Oakland University participated from its founding in the full accreditation status of the programs of Michigan State University. All baccalaureate programs of Oakland University were separately accredited by the North Central Association of Colleges and Secondary Schools in August, 1966. Final accreditation was granted by the Association in 1971 for master's level programs leading to the degrees of Master of Arts, Master of Arts in Teaching, and Master of Science and preliminary accreditation was granted for the doctorate in engineering. Accreditation has been given to the program of the Department of Chemistry by the American Chemical Society. The undergraduate program of the School of Engineering has been accredited by the Engineers' Council for Professional Development.

The University is an institutional member of the following associations:

The American Association of Colleges for Teacher Education
The American Council on Education
Institute of International Education, Incorporated
Latin American Scholarship Program of American Universities
The appropriate departments of the College of Arts and Sciences are institutional members of the following associations:

American Chemical Society
American Institute of Physics
American Mathematical Society
Midwest Art Association
Sigma Xi

## CENTRALIZED AND SPECIALIZED RESEARCH FACILITIES

## THE COMPUTING AND DATA PROCESSING CENTER

The Computing and Data Processing Center is a centralized computing facility which supports instructional, research and administrative programs and projects at Oakland University. The computing equipment consists of an IBM System 360/40 computer with high-speed printer, card reader/punch, tape drives, and disk storage units. Program libraries are maintained and consulting personnel are available to meet the computing requirements of faculty and students. A data preparation area is reserved for faculty and students to prepare programs and assignments for computer execution. A reference library is also maintained with current books, system manuals, and periodicals related to computing and data processing. Faculty and students can explore and complete computing assignments and projects and draw upon the advisory services of the Center in this user-oriented environment. The Center is located in specially designed quarters on the second floor of Dodge Hall of Engineering.

## THE LIBRARY

Oakland University's library collections are housed in Kresge Library and in a small Performing Arts Library (in Varner Hall) which contain a specialized collection of materials on the performance of music, theatre, and the dance. The collections of the University Libraries now contain approximately 220,000 volumes, 150,000 units of microfilm, and 6,000 recordings on disc or tape - all in open stacks. The Matilda R. Wilson Memorial Collection of works of reference, amassed through gifts of money from the University's students, constitutes a large part of the collections and provides a substantial research facility. Other remarkable special collections include one of the largest collections in the Midwest of underground newspapers, and the Hicks Collection of books by and about women.

The Library offers many services to its users: audio centers in both Kresge and the Performing Arts Library; a microfilm reading room; a Documents Department, which houses U.S. and U.N. publications and is a partial depository for the official documents of the United States and of the State of Michigan; a science area in which are concentrated the monographs, indexes, periodicals, and abstracts that pertain to this broad subject field; a General Reference Department; a Circulation Department with a computer-

## OAKLAND UNIVERSITY

ized check-out system; and a Serials Department in charge of about 25,000 periodical volumes as well as other serials.

## OTHER CENTRALIZED AND SPECIALIZED RESEARCH FACILITIES

The research facilities of the University also include the extensive scientific laboratories of the Departments of Biological Sciences, Chemistry, and Physics, and of the School of Engineering; the Institute of Biological Sciences; the Instructional Materials Center; the Kettering Magnetics Laboratory; the Learning Strategy Center; the Office of Institutional Research; the University Instrument and Electronics Shops; the University Reading Center; and the Audio Visual Department.

## CAMPUS BUILDINGS

North Foundation Hall (1959)
Gift of Mr. and Mrs. Alfred G. Wilson. Office of the President; Offices of the Vice Presidents for Public Affairs, for Student Affairs, for Business Affairs; Office of Assistant President for Campus Development; Office of the Dean, School of Economics and Management; Office of the Dean, Evening School; faculty and staff offices (Economics and Management); classroom; Personnel Office; Office of the Registrar; Physical Plant Office; Space Utilization Office; Business Offices; Telephone Office; Office of University Relations; University Services.

## South Foundation Hall (1959)

Gift of Mr. and Mrs. Alfred G. Wilson. Classrooms; Institutional Research Office; Student Congress Office; Division of Continuing Education Offices; Office of Assistant President for Planning; News Services and Publications Office; offices (Classics, Linguistics, Speech Communication).

## Oakland Center (1959)

Self-liquidating funds. Office of University Ombudsman; Student Activities Offices; University Book Store and Gift Shop; Pickwick Games Area; barber shop; laundry and dry cleaners; Charlie Brown's Information Desk; Food Services Office; meeting, banquet, and conference facilities, lounges.

Kresge Library (1961)
Gift of the Kresge Foundation. Library collections, offices, and services; Instructional Materials Center.

## OAKLAND UNIVERSITY

## John Hannah Hall of Sciences (1961)

Funds appropriated by the State of Michigan. Classrooms and laboratories; faculty and staff offices (Chemistry, Physics, Psychology); University Instrument and Electronics Shops; Shipping and Receiving; Career Opportunities Program Office; Office of the Dean, Graduate Studies; Research Services Offices.

Sports and Recreation Building (1963)
Self-liquidating funds. Faculty and staff offices (Physical Education); gymnasium; swimming pool; handball and squash courts.
Charles F. Kettering Magnetics Laboratory (1963)
Gift of the Kettering Foundation. Facilities of the Magnetics Laboratory.

## Howard C. Baldwin Memorial Pavilion (1964)

Gifts from multiple foundation and other private sources. Roofed pavilion, site of the Meadow Brook Music Festival.

## Lula C. Wilson Memorial Concert Shell (1964)

Gift of Lula C. Wilson Trust. Acoustical shell at the Baldwin Pavilion.

## Trumbull Terrace (1965)

Gift of Mr. and Mrs. George T. Trumbull. Patio; food and service facilities for Baldwin Pavilion.

## Matilda R. Wilson Hall (1966)

Funds appropriated by the State of Michigan. Faculty and staff offices (Art, English, Modern Languages, Philosophy); Meadow Brook Theatre; Meadow Brook Theatre Offices; Meadow Brook Festival Offices; University Art Gallery; Admissions, Placement, Financial Aids and Urban Affairs Offices.

## Dodge Hall of Engineering (1968)

Funds appropriated by the State of Michigan and federal grants. Classrooms and laboratories; Computing and Data Processing Center; Office of the Dean, School of Engineering; faculty and staff offices (Allport College, Biological Sciences, Engineering, Political Science); Institute of Biological Sciences; Office of Research Service.

Graham Health Center (1968)
Self-liquidating funds. Health services.

## Paula and Woody Varner Hall (1970)

Funds appropriated by the State of Michigan and a federal grant. Classrooms and recital hall. Office of the Dean, College of Arts and Sciences; Office of the Dean, School of Education; faculty and

## OAKLAND UNIVERSITY

staff offices (Academy of Dramatic Art, Education, History, Music, Sociology and Anthropology); Performing Arts Library; Audio Visual Department Office; Office of the Provost; Office of the Vice President for Academic Affairs.

Central Heating Plant (1971)
Funds appropriated by the State of Michigan.
Meadow Brook Hall
Gift of Mr. and Mrs. Alfred G. Wilson. Office of the Dean, Division of Continuing Education.

Implement Shed
Motor Pool Office.

## Gate House

Public Safety Department; Credit Union.

## Dodge Farm House

Continuum Center Offices.

## RESIDENCE HALLS

Fitzgerald House (1962)
Gift of Mr. and Mrs. Harold A. Fitzgerald, and self-liquidating funds.
Anibal House (1962)
Gift of Mr. and Mrs. B. H. Anibal, and self-liquidating funds.
Pryale House (1963)
Gift of Mr. and Mrs. Harry M. Pryale, and self-liquidating funds.
Hill House (1964)
Gift of Mr. O. E. Hunt. Office of the Dean of Student Affairs; Office of the Dean of Student Life; faculty and staff offices (Learning Skills, Mathematics); Psychological Services Offices.
Van Wagoner Hall (1965)
Self-liquidating funds.
Vandenberg Hall (1966)
Self-liquidating funds. Residence Hall and Food Services Offices; New College Offices; Charter College Offices.

## Hamlin Hall (1968)

Self-liquidating funds.

## ADMISSION, ADIISING, REEISTRATION, AND GRADING

## ADMISSION TO FRESHMAN STANDING

Candidates for admission to the undergraduate degree programs* of the university should have completed regular college preparatory work at the high school level or otherwise demonstrated sufficient academic preparation to begin or continue college work. Highly qualified students may be admitted to the university without regard to the pattern of subject matter completed at their high school. Students planning majors in the sciences, mathematics, engineering, or management, must present at least three years preparation in mathematics, including algebra, geometry, and trigonometry. Consideration for admission is based upon an applicant's total background including high school academic achievement, recommendations, aptitude test scores, educational goals, and potential for success at the university.

Application forms are available from high school counselors or from the university Office of Admissions and should be completed and submitted as early as possible in the senior year. Students who are residents of the State of Michigan are strongly urged to submit prior to registration either Scholastic Aptitude Tests (SAT) or scores from the American College Testing program (ACT). These test results will be used in advising candidates about courses of study and in assisting them to assess their qualifications for alternative course sequences in the curriculum. Students from states other than Michigan must present results from one of the aforementioned testing programs.

## ADMISSION OF TRANSFER STUDENTS

Transfer students may enter Oakland University at four different times: Fall semester (September), Winter semester (January), Spring session (April), and Summer session (June). Students are encouraged to have their applications submitted approximately six weeks before the beginning of the semester in which they wish to enroll. To be eligible to enter Oakland University as a transfer student, a candidate must be in good standing and eligible to return to their former educational institution. All transfer candi-

[^1]
## ADMISSION AND GRADING

dates must complete an application form, have his or her dean of students complete the personal qualification form, and request the registrar of his or her institution to send an official transcript of record. Each application will be considered on its own merits.

## ADMISSION OF TRANSFER STUDENTS FROM MICHIGAN COMMUNITY COLLEGES

Oakland University's baccalaureate programs are designed to accommodate students from the community colleges. Early application is recommended so that candidates can take advantage of all of the services extended to community college transfer students. It should be emphasized that transfer students from the community colleges are eligible for the same financial aid programs and other services available to students who enter the university from high school.

A student may transfer to the university as many as 62 semester credit hours earned at a community college. Transfer credit will be granted for those courses in which a student received a C or a 2.0 grade or better. Technical and applied science courses will be granted credit only where the courses are directly relevant to the student's intended major.

## RECOMMENDED PREPARATION FOR TRANSFER

Transfer students may present a wide variety of course work for transfer credit. The university tries to offer maximum credit for courses already completed. Most community college transfer students concentrate on completing courses related to general education prior to transfer. Although the university attempts to allow maximum flexibility for meeting the general education requirements while at the community college, the transfer student is advised to choose courses in such a manner so as to meet the majority of the general education requirements prior to transfer. Oakland University general education course work is arranged in field groups. Perspective transfer students should try to take at least one course in four of the five field groups outside of the intended major. The field groups and the academic units sponsoring courses within them are:

## ADMISSION AND GRADING

## A. Symbolic Systems

This group includes courses in linguistics; mathematics; foreign language, or computer programming.
B. Letters

This group includes literature courses taught in English or any foreign language; history, philosophy; religious studies; or classics. Courses may focus on Western or non-Western culture.
C. Arts

This group includes introductory courses in art, music, or theatre. Emphasis is placed on appreciation, history, elements, forms, styles, and criticism.
D. Social Sciences

This group includes course work in either anthropology, economics, political science, psychology, or sociology. Teaching majors should choose one course in psychology.

## E. Area Studies

This group includes any course which deals in the fundamental principles, historical development or major achievements of the non-Western civilizations of Africa, China, India, or Japan; Latin America, or the Slavic Nations.
F. Natural Science

This group includes courses in Biology, Chemistry, Physics, or Environmental Studies.

It should be noted that the above listed general education courses serve merely as a guideline to the community college transfer student. Besides the general advising program, specific advising regarding course selection is available through the appropriate dean in the Schools of Engineering, Education, and Economics and Management. In most majors it is to the student's advantage to have as many of these requirements completed as possible prior to transferring. However, the student need not have all general education requirements completed before transferring.

## admission Of students who are not citizens OF THE UNITED STATES

A student from abroad should write to the Director of Admissions, Oakland University, Rochester, Michigan, 48063, at least one year before the time he or she wishes to be admitted. The

## ADMISSION AND GRADING

candidate will be sent instructions and an application form which should be completed and returned at once. When the application is approved, the candidate will receive a certificate of admission to enter the university. This certificate is to be used to apply for the appropriate visa. Prior to the student's official registration, proof of adequate medical insurance plus a signed authorization for emergency medical treatment must be on file in the university health center.

Students who are not citizens of the United States transferring from other institutions to the university, must apply for permission to do so through the Immigration Office nearest them. Before applying for permission to transfer, the candidate must be in possession of a form I-20 from Oakland University.

## ADVANCED PLACEMENT

Credit toward graduation is granted to students presenting evidence of satisfactory completion of courses in high school under the Advanced Placement Program of the College Entrance Examination Board. Oakland gives credit for grades of 5 or 4 in the Advanced Placement examinations. If a grade of 3 or 2 is achieved, the examination is subject to review by the department concerned, which may grant advanced placement with or without credit toward graduation.

## CREDIT BY EXAMINATION

College Level Examination Program (CLEP):
Credit toward graduation can be granted to students demonstrating competency in the various subjects tested in the CollegeLevel Examination Program administered by the College Entrance Examination Board, Princeton, New Jersey 08540. Candidates who wish to use this test as an admissions credential should have their scores forwarded to the Director of Admissions, Oakland University, Rochester, Michigan 48063.

## Accelerated Degree Program:

Candidates entering Oakland University who have had no previous college experience and who have demonstrated superior preparation and accomplishment can be considered for admission into the Accelerated Degree Program of the University. Students who are successful in entering the program will be awarded credit toward graduation based on the College-Level Examination Program mentioned above to the extent that they will earn the baccalaureate in three academic years. Specific requirements for

## ADMISSION AND GRADING

admission to the Accelerated Degree Program may be obtained from high school counselors or by contacting the Director of Admissions, Oakland University, Rochester, Michigan 48063.

## APPLICATION FOR ADMISSION TO UNDERGRADUATE PROVISIONAL AND GUEST ADMISSION STATUS

Students enrolled at other colleges and universities may apply for guest admission status by filing the Michigan Uniform Undergraduate Guest Application blank, which is obtainable from the registrar's office of their home institution. In addition, students attending colleges outside the State of Michigan may apply for guest admission by filing Oakland University's guest application blank and arranging to have a transcript of grades forwarded to the Admissions Office. Students attending Michigan colleges and universities are not required to submit transcripts.

## HEALTH CERTIFICATION REQUIREMENT

As a condition of enrollment, all full-time students must complete a physical examination. The results of the examination should be recorded on the University health form, and this form must be submitted to the Health Center prior to enrollment. If a student's form is not on file in the Health Center, he or she will not be permitted to register. A full-time student is one who is carrying 10 or more credits. All full-time transfer students may request that their physical examination records be sent from their previous institutions if these records are not more than a year old.

All foreign students must have a physical examination form on file in the Health Center; they must also have health insurance, which is available through a University program or which may take the form of a policy issued by a firm in their home country.

## ORIENTATION

Freshman orientation is designed to introduce new students to academic programs and to campus life at Oakland University. The summer orientation program provides an opportunity for entering students to meet other students and faculty who can help them to anticipate the opportunities afforded by a university education and the responsibilities inherent in receiving such an education. From these meetings freshmen gain some insight into the distinctive character of Oakland University. At orientation students take placement tests, receive academic advising, register for classes, partici-

## ADMISSION AND GRADING

pate in campus activities, and attend information meetings which are helpful in acclimating students to college. All new students, except those from other states and foreign countries, are expected to attend one of the summer orientation programs. Out-of-state and foreign students will participate in an orientation program after their arrival on campus and before entering classes in the fall. A fee of $\$ 35$ is charged to cover the cost of freshman orientation.

New transfer students must attend a special advising session late in the summer. A fee of $\$ 10$ is charged to cover the cost of orientation for transfer students.

## ACADEMIC ADVISING

Students, depending upon class rank, receive assistance in planning a program of studies through the freshman advising program or the departmental advising program.

## ADVISERS FOR FRESHMEN

Academic advisers for first-year students are selected to provide special assistance to freshmen because of the problems and opportunities that are unique to the freshman year. Each freshman is assigned a faculty adviser, a student affairs counselor, and a student adviser who work jointly in assisting the new student to understand and effectively deal with his or her new environment. Specifically, some of the many functions of advisers for freshmen are:
(a) To provide a meaningful description and interpretation of the academic programs at Oakland University.
(b) To assist freshmen with the formulation and achievement of their educational objectives.
(c) To help them become acclimated to university life (particularly to the academic programs), giving individual attention and guidance to those with special concerns.
(d) To develop a personal understanding of and appreciation for each advisee as an individual in order to be able to facilitate his or her academic progress and personal development.

Freshmen who have questions about the advising program should direct them to the Dean of Freshmen.

## ADMISSION AND GRADING

## ADVISERS FOR UPPERCLASSMEN

From the end of the freshman year until the senior year each student is advised by the department in which he or she intends to major. A faculty member from each department is responsible for the coordination of the advising functions for the department, and arrangements to meet with faculty advisers are scheduled through the departmental office. It is the adviser's function to help the student select courses, develop educational objectives and career interests, resolve problems related to academic procedures, and derive the maximum benefit from the educational experience. It is the student's responsibility to arrange an appointment with an adviser at any time the student may have questions about his or her academic program. In addition to faculty advisers, most departments employ selected upper-class student advisers who are available to assist students with most questions and problems.

Upperclassmen who have not indicated a preference for a major are advised by counselors in the Office of Student Services. Students who have questions about the Advising program should direct them to the Advising Office, 204 Hill House.

## READMISSION

A student whose registration at Oakland is interrupted for one or more semesters must apply for readmission. Application should be made to the Readmissions Office, 219 Hill House at least one month prior to the beginning of the semester the student expects to reenter. Students who have attended another college or university during their absence from Oakland must pay a $\$ 15$ application fee. A check in this amount, payable to Oakland University, should accompany the application.

## COURSE AND CREDIT SYSTEM

The unit of credit is the semester hour. Courses carry 4 credits unless otherwise specified. Normally, the maximum student registration is 16 to 18 credits a semester. With his or her adviser's permission, however, a student who has completed 12 or more credits at Oakland may register for as many as 21 credits provided that his or her cumulative grade point average is at least 2.60. All other students may take more than 18 credits only as a result of a successful Petition of Exception.

## ADMISSION AND GRADING

## PETITION OF EXCEPTION

Any student may request a waiver or modification of specific academic requirements.

Students in the College of Arts and Sciences may obtain a Petition of Exception form in the Office of Student Services. When it has been completed, countersigned by a faculty member in the student's major department, and returned to the Office of Student Services, it will be referred to the Committee on Instruction. The student, the Registrar, and the student's academic adviser or major department will receive a copy of the petition containing the action taken by the committee.

Students in the School of Education, the School of Engineering, and the School of Economics and Management may request petitions from their respective schools. The procedures are similar to those outlined above.

## CHANGE OF COURSES

To drop a course, an upperclassman must have the permission of the instructor. A freshman student should secure the signature of both the instructor and his or her adviser. Denial of permission is subject to review by the dean of the appropriate school or college. Courses may be dropped at any time during the term the student decides not to complete a course. The student who decides to drop a course will receive an " N " grade. The dropping of courses for which refund of fees is claimed must be processed on a "drop-and-add" slip through the Office of the Registrar. (See also Refund of Fees pp. 34,35.) A student who wishes to drop a course after refund deadlines should request assignment of an " N " grade from his or her instructor.

No addition of courses or change of sections initiated by the student can be made after the end of the second week of classes.

## MODIFIED MAJOR

Students taking certain majors may, if they so choose, apply to their major departments for permission to modify the normal requirements for the major in order to suit individual programs. Written permission for specific modifications must be given by the department and filed by the student in the Office of the Registrar.

## ADMISSION AND GRADING

## COURSE COMPETENCY

Students may receive credit toward graduation designated as competency credit (graded on an $\mathrm{S} / \mathrm{N}$ basis) on their transcripts for Oakland University courses, subject to the following provisions:

1. That they register for the course at registration with permission of the department chairman, dean, or program director of the acamedic unit responsible for the course.
2. That they pass an appropriate competency examination not more than six weeks after registration closes. A student may receive up to 60 semester hours of competency credit based upon non-classroom experience. Ordinarily credit will not be permitted for a course when a student has acceptable credit for more advanced courses in the same area. The repeat course rule shall apply to repeating of such competency examinations.

## REPEATING COURSES

With the permission of his or her adviser, a student may be allowed to repeat a course. No course may be repeated more than twice, including repetition by competency examination. The last grade earned in a course (excluding grades of " N ") will be used to compute the student's grade point average.

## GRADES AND GRADE POINT SYSTEM

Oakland University uses a numerical grading system in which the scale of grades rises by tenths from 1.0 to 4.0 . The grade of 1.0 is the lowest grade for which credit is assigned; however, grades from 1.0 to 1.9 inclusive are in the penalty range in that they fall below the minimum cumulative grade point average of 2.0 required for graduation. Grades from 2.0 to 4.0 inclusive are in the range necessary to meet or exceed the minimum cumulative grade point average of 2.0 required for graduation. Thus, grades in the penalty range of 1.0 to 1.9 must be compensated for by grades in the range of 2.1 to 4.0 to the extent necessary to raise the cumulative grade point average to 2.0 or more.

Oakland University numerical grades may be described as follows:

| 4.0 | excellent |
| :--- | :--- |
| 3.0 | good |
| 2.0 | satisfactory |
| 1.0 | inadequate but receives credit |

## ADMISSION AND GRADING

## I-INCOMPLETE

The "I" (Incomplete) grade is a temporary grade that may be given only after the thirteenth week in a course in which a student is unable to complete the required work because of severe hardship. An "I" grade does not become official until approved by the Provost.

The "I" grade must be removed by completing the required work before the deadline set by the instructor but in no case later than the end of the next semester that the student is in residence, or a grade of " N " will be recorded. If more than three semesters intervene before the student resumes residence, then the "I" grade becomes an " N " grade.

## N-NO GRADE

The grade of " N " (No grade) is assigned whenever a student registers for a course but for any reason does not receive credit for that course (except when a temporary grade of "I" or "P" has been assigned). The " N " grade will appear on the grade report, but will not be recorded on the transcript of the student.

## P—PROGRESS

The grade of " P " (Progress) is a temporary grade that may be given only in a course that could not be completed in one semester. A department that wishes to assign the grade of " P " must receive approval for such courses from the dean of the appropriate school or college prior to the enrollment of students. Such courses are usually research projects. This grade is given only for work that is satisfactory in every respect; it is work for which students need more than one semester in order to complete the course.
"P" grades must be removed within two calendar years from the date of assignment. If not removed within the time limit, the " P " will be changed to an " N ".

## S-SATISFACTORY

The grade of "S" (Satisfactory) is given in certain selected courses and is meant to imply 2.0 or better. This grade carries credit toward graduation but is not used in computation of the grade point average.

## GRADE POINT AVERAGE

A student's grade point average is computed by multiplying the grade received by the hours of credit for each course and dividing

## ADMISSION AND GRADING

by the total credits carried in all semesters. If a course has been repeated, only the credits carried and points of the last grade earned are computed. Courses for which "I," "P," "S," or " N " are reported are not used in this computation.

## ACADEMIC RECORD

A report of the student's grades in each course is sent to the student at the end of each semester.

A student may be warned, placed on probation, or suspended from the University if his or her work is not satisfactory.

A permanent record of all the student's courses, credits, and grades earned is kept at the Registrar's Office. Copies of the permanent record are available to the student upon request and payment of a small service charge.

## ACADEMIC HONORS LIST

In recognition of academic achievement a list of outstanding undergraduate students in three categories is published each semester. These are: University Scholar, recognizing semester grade point averages of 3.9 or higher; Student of Great Distinction, recognizing semester grade point averages between 3.5 and 3.89; and Student of Distinction, recognizing semester grade point averages between 3.0 and 3.49. In order to qualify for the Honors List, a student must have received numerical grades in twelve or more credits of academic work with a grade point average of 3.0 or higher.

## ACADEMIC PROBATION AND DISMISSAL POLICY

The academic probation and dismissal policy was revised in spring, 1971. A statement of the new policy is available from the Office of Student Services.

## SEPARATION FROM THE UNIVERSITY

A student who is separated from the University is no longer officially enrolled and does not have the privileges of a registered student. A student who has been separated from the University may apply for readmission through the Office of Student Services unless he or she has been informed that he or she will not be considered for readmission.

## ADMISSION AND GRADING

## WITHDRAWAL

A student withdrawing from the University must do so through the Office of Student Services. The withdrawal must be presented to the Registrar for recording and authorization of any possible refund. All students who withdraw must be readmitted in order to register for classes.

When a student withdraws from the University, a grade of " N " will be assigned in all courses.

## FINANCIAL AID AND SCHOLARSHIPS

## SCOPE OF THE PROGRAM

Oakland University offers aid to students who do not have sufficient funds to finance their education. This aid is offered in the form of grants in aid, Educational Opportunity Grants, National Direct Student Loans, College Work-Study Program employment, and Oakland University Student Employment. There are also some scholarship awards based on ability and achievement.

## PROCEDURES FOR APPLICATION AND RENEWAL OF AID

The University, as a member of the College Scholarship Service, requires all students seeking assistance to file a confidential financial statement with that organization. Forms for this purpose may be obtained from the applicant's high school or from the University. In addition, the University requires that applicants provide the Oakland University Application for Financial Aid, and a copy of the most recently filed federal income tax forms 1040 and the corresponding W2 forms.

Stipends vary, and may range from an amount equal to full tuition, room and board, to a minimal amount, depending on the degree of financial need demonstrated in the application.

In order to renew aid each year, students must submit an application along with the financial statement and the tax forms. Oakland University Scholarship Aid is offered for a maximum of eight semesters.

## SCHOLARSHIPS

Oakland University has a comprehensive scholarship program designed specifically for the student who has demonstrated outstanding academic achievement or who has contributed significantly to extra-curricular activities while in high school or college. These scholarships vary in amount, but outstanding freshmen or transfer students may be awarded up to an amount equal to full tuition, room and board. Further, Oakland University has a competitive program which is open to all high school seniors. The competitive examination is held annually during the month of November. It is not necessary for a student to have been ad-

## FINANCIAL AID

mitted to Oakland to participate in the competition. Winners for these premium scholarships are selected by a scholarship committee.

## FINANCIAL AID FOR TRANSFER STUDENTS

In addition to the scholarship programs described above, Oakland University also offers a full range of financial assistance programs to the transfer student. This aid is offered in the form of Oakland University Grants, Educational Opportunity Grants, National Direct Student Loans, College Work-Study employment and Oakland University student employment. The amount of the stipends depend upon the degree of demonstrated financial need.

## SPECIAL AND ENDOWED SCHOLARSHIPS

Funds for the Oakland University Grant and Scholarship Programs are derived from the general budget, from the fund-raising efforts of a group of women in the greater Detroit area, and from gifts from individuals, groups and corporations.

These endowment funds for scholarship programs have been given to the University:
Mr. and Mrs. Benjamin Anibal Scholarship
Is awarded to a student in engineering.

## Mary Fogarty Anibal Memorial Scholarship

Provides general scholarships and foreign study scholarships.

## Alvin M. Bentley Foundation Award

Is a one-year award given for academic excellence and financial need.

Campbell-Ewald Scholarship
Supports general scholarships.
Harlow H. Curtice Memorial Scholarship
Supports general scholarships.

## George H. Gardner Scholarship

Provides general scholarships.

## General Motors Scholarship

Is awarded to outstanding students, with stipends ranging from $\$ 200$ to $\$ 2,000$ depending upon demonstrated need.

## Lee Grekin Memorial Scholarship In Instrumental Music Offers an award to upperclassmen.

Mrs. C. Allen Harlan Scholarship
Offers an annual award to an entering freshman.

## Herbert M. Heidenreich Scholarship

Offers a full tuition, renewable grant annually to entering freshmen of Mexican-American or Latin-American descent.

## Ormond E. Hunt Memorial Fund

Supports scholarships for students in engineering.

## Isaac Jones Scholarship Fund

Provides scholarships for Black students in memory of the first Black graduate of the University.

## Mr. and Mrs. Roger M. Kyes Scholarship

Is awarded annually to an upperclass student majoring in English.

## John A. MacDonald Scholarship

Offers an award to a student in Government.
Mildred Byars Matthews Memorial Scholarship
Is awarded to students majoring in Art History.

## Pontiac Central High School Scholarship

Is awarded to alumni of that school.

## Gladys Rapoport Scholarship

Is awarded annually to a student who has offered outstanding leadership in residence hall government. This is the gift of Oakland alumni, Mr. and Mrs. Douglas Bastian.
Village Women's Club of Birmingham Scholarship Is offered to a woman student from Oakland County.

## Ruth E. Wagner Endowment Fund

Supports the general scholarship program.
A. Glen Wilson Endowment Fund

Supports the general scholarship program.
Alfred G. Wilson Memorial Honor Scholarship
Is awarded annually to an entering freshman.
Matilda R. Wilson Memorial Honor Scholarship
Is awarded annually to an entering freshman.

## Thomas E. Wilson Scholarship

Supports the general scholarship program.

## FINANCIAL AID

## LOANS

The University participates in two government loan programs, the Federal Guaranteed Loan and the National Direct Student Loan program. Both of these offer loans at low interest rates and repayment periods.

Loans for personal and emergency needs, but not for payment of regular University fees for tuition, room and board or other fees that can be anticipated, are provided from gifts from the following individuals and groups.
Century Brick Loan Fund
David R. Robson Memorial Loan Fund
Pontiac Kiwanis Club Loan Fund
C. Allen Harlan Loan Fund
H. H. Corson Loan Fund

Joan Selby Memorial Loan Fund
Greater Pontiac Centennial Student Loan Fund
Li Russ Club Student Loan Fund
Walter K. Willman Loan Fund
W. Everett Grinnell Loan Fund

Oakland County Engineering Society Loan Fund
Student Activities Coordinating Council Loan Fund
John A. MacDonald Loan Fund
Lathrup Village Women's Club Fund
Piety Hill Chapter of the Daughters of the American Revolution of Birmingham Loan Fund
Paul Solonika Loan Fund
William Spickler Memorial Loan Fund
George N. Higgins Loan Fund
James Mangrum Loan Fund
Pat Dandurand Memorial Loan Fund
Civitan Loan Fund
Alumni Loan Fund
Insurance Women of Detroit, Inc. Loan Fund
Michael Werenski Memorial Loan Fund
Mark Platt Memorial Loan Fund
Colony Green Garden Club Loan Fund
Women's Literary Club of Pontiac Loan Fund

## PART TIME EMPLOYMENT

Although demand usually exceeds supply, on-campus jobs of varying kinds and durations are provided for students who wish to work during the school year. Students seeking employment should register for this in the Financial Aid Office. Most students who have part-time employment work between ten and twenty hours per week.

## COURSE FEES AND OTHER FEES

## GENERAL POLICY

The Board of Trustees of Oakland University reserves the right to change any and all rates of charge at such times as conditions or circumstances make change necessary.

All charges are assessed and payable, in U.S. dollars, at registration or as otherwise hereinafter provided. Students are urged to use checks or money orders payable to Oakland University, rather than cash, for the payment of charges. If checks or money orders are in excess of the required payments, the balance will be given to the student.

Course fees, housing fees, and special fees quoted here are for a semester and apply to undergraduates and graduates in degree programs. For charges applicable to the Spring and Summer Sessions refer to that separate bulletin.

## COURSE FEES

All course fees and special fees must be paid in full at registration. No registration is considered final until all fees are paid.

Students who are residents of Michigan and register as undergraduates are assessed $\$ 17.50$ per credit hour. Those who register as graduate students are assessed $\$ 22.50$ per credit hour.

All students who are not residents of Michigan are assessed \$49 per credit hour. See p. 35 for out-of-state tuition rules.

## SPECIAL FEES

Undergraduates who register for 10 or more credits are charged an additional $\$ 16$ ( $\$ 10$ student center fee, $\$ 5$ activity fee, and \$1 Wilson Memorial Library fee).

Undergraduates who register for less than 10 credits will be charged an additional \$6 (\$5 student center fee and \$1 Wilson Memorial Library fee).

Graduates who register for 10 or more credits are charged an additional \$11 (\$10 student center fee and \$1 Wilson Memorial Library fee).

## COURSE COMPETENCY BY EXAMINATION FEE

Students who are residents of Michigan and register as undergraduates for course competency by examination are assessed $\$ 12$ per credit. See p. 23 for course competency regulations. Those who register for course competency as graduate students are assessed $\$ 15$ per credit hour.

All students who are not residents of Michigan are assessed $\$ 33$ per credit hour for course competency registrations.

## ENROLLMENT DEPOSIT

Within three weeks after notification of admission, an enrollment deposit of $\$ 50$ must be paid. This deposit will be applied directly to future course fees. For students applying for entrance to the Fall Semester one-half of the deposit is refundable if the university is notified before April 1 that the student does not intend to enroll. No refunds will be made after that date, and additional dates appropriate to other semesters will be announced.

## APPLICATION FEE

A fees of $\$ 15$ must accompany all applications for admission. This is a processing fee and is not refundable.

## LATE REGISTRATION FEE

Students registering or paying fees after the regular registration date are required to pay an additional, non-refundable fee of $\$ 1$ per credit hour for the first day and $\$ 2$ per credit hour on subsequent days.

## ORIENTATION FEE

A fee of $\$ 35$ is charged to all freshman students to cover the cost of the two-day freshman orientation held in the summer. A fee of $\$ 10$ is charged to transfer students for a one-day preschool orientation for transfers.

## PARKING FEE

Parking automobiles on campus is regulated by the University's Department of Public Safety. The yearly parking fee is payable at the time of registration. For further information students should contact the Public Safety Office in the Gate House.

## ROOM AND BOARD FEES

The Residence Halls are financially self supporting. Room and Board fees reflect the actual cost of operation and are established by the University's Board of Trustees. The 1972-73 rate is $\$ 1,226.00$ for the academic year. If the student signs a housing contract prior to or during the Fall Semester that contract is binding for both the Fall and Winter Semesters. If the contract is signed during the Winter Semester or Spring or Summer Session, it is binding for the single semester or session. The Room and Board fee is due at registration or may be paid in three installments, the first of which is due at registration. The second and third installments are due on the first day of the two months following registration. If a student withdraws from the University, the deposit is forfeited and housing fees are refunded on a prorated basis.

## HOUSING DEPOSIT

Requests for housing reservations should be addressed to the Admissions Office and must be accompanied by a $\$ 25$ deposit. For the Fall Semester, this deposit is refundable if the University is notified prior to July 1 that the student does not intend to take up residence. This deposit is held on account as long as the student resides in University housing. It does not apply toward the housing fee.

## REFUND OF FEES

A student who withdraws from the university or drops a course which reduces his or her total credit load will receive a refund of fees upon application to the appropriate office. Undergraduate students withdrawing from the university apply to the Office of Student Services. Graduate students withdrawing from the university apply to the Office of the Dean of Graduate Studies. Changes in enrollment are processed in the Office of the Registrar. The amount of refund will be based on the following schedule.
Date Application Is Received Tuition RefundBefore the beginning of classes 100\%After the beginning of classes and
before the beginning of the second week ..... 80\%
During the second week of classes ..... 70\%
During the third week of classes ..... 60\%
During the fourth week of classes ..... 50\%
During the fifth week of classes ..... 40\%
During the sixth week of classes ..... 30\%
During the seventh week of classes ..... 20\%
After the beginning of the eighth week of classes ..... 0\%

The date the application is received in the proper office determines the percentage of refund.

## OUT-OF-STATE TUITION RULES

1. A resident of Michigan (except for aliens) is defined as a person who has resided in this State for six months immediately preceding his or her first enrollment.
2. No one may gain or lose the status of a resident while a student at the University.
3. The residence of a minor shall be the same as that of his or her legal guardian except where guardianship has been established in this State for the purpose of evading the fee.
4. Aliens who have secured their Declaration of Intent papers and have otherwise met the residence requirements shall be considered residents.
5. The resident status of any person other than a parent or legal guardian who may furnish funds for payment of University fees shall in no way affect the residence status of the student.

## ESTIMATED EXPENSES

The cost of attending Oakland University is moderate. For a full-time undergraduate student, who is a Michigan resident living on campus, the total cost of course fees, special fees, books and supplies, and room and board will likely be $\$ 979$ per semester. For students who commute from a residence off campus, the direct cost will likely be $\$ 366$. Transportation and parking are extra. For students who are not residents of Michigan, the cost will likely be \$1,483.

## RESIDENCE HALLS: FACILITIES AND COSTS

The University provides on-campus residence halls planned and administered to relate to and enhance the students' academic experiences. A communal living experience with one's peers has been likened to a "laboratory for living" and has inherent value in the personal growth of most students. In accordance with a belief in this principle the University provides for on-campus residence and dining accommodations. All students are encouraged to live on campus to take maximum advantage of the activities and resources of the University community.

Head Residents and Resident Assistants live in each hall and serve as advisers to individuals and student groups in their adjustment to group living and to the total University environment. Each Head Resident is responsible for the coordination of his hall's program and the work of his Resident Assistants. He is usually a member of the University faculty or a student personnel professional. Resident Assistants are student staff members of upperclass standing who have demonstrated success and leadership in University life.

## RESIDENCE FACILITIES

The University maintains five residence halls which offer variety in program, accommodations, and size. The halls, all built in the last nine years, accommodate about one-third of the student population. They are attractively grouped on spacious wooded grounds overlooking a small lake and are all within convenient walking distance of classroom buildings, the Kresge Library, the Oakland Center, and the Sports and Recreation Building. Fitzgerald House, and Pryale House are L-shaped buildings with twenty-four double rooms in each wing; the wings are joined by a student lounge and an apartment for the Head Residents. Van Wagoner Hall is a six-story unit, containing 100 double rooms, a lobby, lounge, recreation room, and Head Resident's apartment. Vandenberg Hall, completed in 1966, is a seven-story twin-tower structure. It contains 285 double rooms, student lounges, multiple-use areas, study and seminar rooms, and recreation areas. Students enrolled in Charter and New College live in Vandenberg Hall, and the offices of these colleges are in the same hall. The newest facility, Hamlin Hall, completed in 1968, houses 676 students. A nine-story hall, it has a main lounge, a lounge on each floor, and several

## RESIDENCE HALLS

multipurpose areas. Hamlin and Vandenberg Halls provide a variety of suite plans of accommodation.

Facilities which are provided in each hall include telephones in each room or suite, coin-operated washers and dryers, lounges with varying recreational facilities. Mail is picked up and delivered twice daily. Rooms are furnished with study desks and lamps, bookshelves, wastebaskets, bulletin boards, single beds, pillows, dressers, wardrobes, and venetian blinds. Residents provide their own blankets, bedspreads, throw rugs, and draperies. Lamps, electric blankets, clocks, radios, television sets, and record players are allowed subject to safety regulations, limitations of space, and consideration of others in their use. Maintenance service is provided by the University in common areas. Individual residents assume responsibility for keeping their rooms cleaned and in order.

## FOOD SERVICE

Food service for resident students is managed by Szabo, Inc., a professional catering staff concerned with providing nutritionally balanced, tasteful, and attractively served meals. The dining room in Vandenberg Hall provides cafeteria-style service for resident students and their guests. Special dinners, often featuring ethnic or nationality foods, are planned at regular intervals. Arrangements are often made for food service at a variety of student functions. The Oakland Center provides dining facilities for the entire community through a public cafeteria and grill which features a rathskeller.

## GENERAL POLICY

To be eligible for University housing a student must be enrolled for a minimum of eight credit hours, except with the permission of the Director of Residence Halls. The Board of Trustees of the University requires that:
A. All full-time unmarried students who have earned less than 59 credit hours and who do not commute from the residence occupied soley by a single member family related to the student at the time of registration, must live in University Residence Halls.
B. Exceptions to this policy will be processed by a University administrative committee established for this purpose. Any exceptions which are granted to students under 18 must be

## RESIDENCE HALLS

accompanied by a written endorsement of exception from the parent or legal guardian of the student.

Students must register the address of their actual residence with the Office of the Registrar and notify this Office of any change of residence which takes place during the school year.

## ROOM AND BOARD FEES AND CONTRACTS

The residence halls are financially self-supported. Room and board fees reflect the actual cost of operation and are established by the University's Board of Trustees. The 1972-73 rate is $\$ 1,226.00$ for the academic year. If a student signs a housing contract prior to or during the Fall Semester, that contract is binding for both the Fall and Winter Semesters. If the contract is signed during the Winter Semester or Spring or Summer Session, it is binding for the single semester or session. The room and board fee is payable at registration each semester or in three payments, the first due at registration and the second and third due the first day of each of the next two months. If a student withdraws from the University the deposit is forfeited and housing fees are refunded on a prorated basis.

## APPLICATION FOR RESIDENCE

New students should request a housing reservation through the Admissions Office. A housing deposit of $\$ 25$ must accompany this request. This deposit serves as a breakage or damage fee, and it is refunded when students properly check out of University housing, provided no deductions are necessary. Should an applicant for student housing find it impossible to honor an advance registration, the Director of Admissions should be notified of this change in plans prior to July 1 for the Fall Semester and one month prior to registration for the Winter Semester and Spring and Summer Sessions. Deposits are forfeited if notice of not attending is received after these dates. Deposits made after these deadline dates will also be forfeited if a student does not register and take up residence.

Upon a student's acceptance at Oakland, his or her reservation will be processed by the Residence Halls Assignment Office. Notification of assignment will be given approximately four weeks before the beginning of each semester. Returning students may renew housing contracts through the Residence Halls Assignment Office, 159 Vandenberg Hall.

## CHECK-IN

Returning students may occupy their rooms beginning with the day preceding registration for each semester and session; new students beginning with the day preceding the first day of classes. Rooms and board are not provided during official recesses as listed in the University calendar or between semesters.

## STUDENT SERVICES


#### Abstract

When a student arrives at the Oakland University campus, he or she finds that many persons are interested in helping him or her to enter effectively into college life. Some of the various student services and their operations are outlined in the sections following.


## THE DIVISION OF STUDENT AFFAIRS

The primary objective of the Division of Student Affairs is to contribute to student development through a diversified program of educational services and activities. Opportunities are offered for students to receive assistance regarding personal and social problems, to experience group living, to share in student government, and to participate in cultural, intellectual, and social activities. The functions of the Division include: general counseling; academic advising and support services; administration of academic standing, withdrawal, and readmission policies; student housing; financial aid; placement; student health; physical education; public safety; student activities; operation of the University Book Center and other facilities of the Oakland Center. Students who need assistance concerning student affairs or personal matters are encouraged to consult the staff members of the various services and agencies which are a part of this Division.

Because services and agencies of the Division of Student Affairs relate to many areas and aspects of student life, reference to them is spread over many sections of this catalog. Specifically, for information on academic advising, see pp. 20-21; for information on academic standing, withdrawal, and readmission policies, see pp. 21, 25, 26; for information on student housing, see pp. 36-39; for information on financial aid, see pp. 27, 28; for information on placement, see pp. 42, 43; for information on student health, see p. 42; for information on physical education, see pp. 48-50; for information on the various facilities and activities in the Oakland Center, see p. 50.

## THE OFFICE OF STUDENT PROGRAMS

The Office of Student Programs is designed to provide academic support for the student who needs particularized assistance for a successful academic experience at Oakland. This Office is staffed

## STUDENT SERVICES

with tutors, professionally trained counselors, and curriculum innovators.

## STUDENT SKILL DEVELOPMENT CENTER

The student Skill Development Center provides Oakland students with scheduled support seminars and tutorial assistance in an effort to maximize the students' chances for success. This particularized support is provided to complement and supplement the regular services of the University. Although the center was initially designed to meet the needs of students assigned to the Office of Special Programs at the time of admission, it is open to all students in the University. To achieve the goal of assisting students to enjoy successful academic experiences, individual and group counseling is provided. The counselors deal with personal-social problems and career-oriented advising to affect positively the attitude of students to education at Oakland University.

A new dimension of the Student Skill Development Center will be its attempt to house numerous reference material which can be checked out by students and returned for continued use with no cost to students.

## READING CENTER

The University Reading Center is available for students who wish to improve their reading and study skills. While many students who have difficulties in meeting their reading and study obligations can benefit from the help offered by the Center, others whose skills are already well developed, but who wish to improve them further, can benefit at least as much. A trained staff and special facilities are available in the Reading Center. Students may arrange appointments either directly or through referral by their adviser, the Office of the Dean of Students, or the Office of Psychological Services.

## WRITING CENTER

The Writing Center is designed to assist students in improving their writing competence. Members of the English faculty and a staff of graduate and undergraduate assistants accept students who enroll voluntarily in the Center and students who are referred by Freshman Exploratory instructors or academic advisers. Students in the latter category are enrolled in ENG 009, Aids to Expository

## STUDENT SERVICES

Writing, in which "S" (Satisfactory) or " N " (No grade) grades are awarded.

Grades awarded in Learning Skills reflect the grades awarded in ENG 009.

## HEALTH CENTER AND STUDENT INSURANCE

The Oakland University Medical Center consists of an out-patient department staffed by full-time physicians and nurses, fully equipped emergency room, physical therapy department, and laboratory. The facility offers emergency treatment, as well as diagnosis and treatment of both acute and chronic medical problems occurring within the University population. The Center is equipped to provide physical therapy, medication, and a number of laboratory analyses.

The University encourages each student to have adequate medical coverage either through a family plan or through the student insurance plan. Information concerning student insurance is mailed to all students in August. Foreign students must have proof of insurance as well as signed Authorization for Medical Treatment forms on file in the Health Center.

## PSYCHOLOGICAL SERVICES

The Office of Psychological Services is staffed with clinical psychologists who provide specialized counseling, consultation, and psychotherapy to Oakland students with personal and interpersonal problems. Use of the service is voluntary and is available by appointment at no charge to the student. All personal material discussed is held strictly confidential and does not become part of the student's academic record.

## OAKLAND UNIVERSITY CHILD CARE CENTER

While attending classes or participating in other campus activities, students who have pre-school children-two and a half through five years old-may leave them for a small fee at the Child Care Center. Complete information may be obtained from the Child Care Center or at the Student Affairs Office when the center is not open.

## CAREER ADVISING AND PLACEMENT OFFICE

The Career Advising and Placement Office provides counseling services to graduating seniors interested in career-oriented em-

## STUDENT SERVICES

ployment in industry, business, government service, teaching, and other professional fields. It also provides seniors with an opportunity to have interviews with representatives of many companies, government agencies, and school systems who regularly recruit on campus.

Occupational guidance and counseling is available to all students through this office as well as information on graduate and professional schools, and graduate school financial aid. A very complete library containing descriptive material on career opportunities and the requirements for specific occupations is maintained for students' use. Also available through this office are forms for the following examinations: Federal Civil Service, National Teacher Exam, Graduate Record Exam, Law School Admission Test and Graduate Study in Business.

Other services performed by this Office include alumni placement and assistance in securing part-time, off-campus, careeroriented employment.

## FOREIGN STUDENT OFFICE

To date Oakland University has in attendance about fifty international students both undergraduate and graduate. The Foreign Student Office was created specifically as a service to such students and is located on the second floor of Hill House. It is a center of information for questions concerning immigration requirements; personal, academic, and financial counseling; offcampus visits; and participation in community programs.

## INFORMATION ON STUDY ABROAD

In addition to information on study abroad supplied by individual departments, the Foreign Student Advising Office keeps a file on study and travel opportunities outside the United States for United States nationals. The Foreign Student Adviser has a library of information regarding travel, independent study, study programs offered by other accredited institutions, graduate and undergraduate programs, programs in English, and financial assistance for study abroad. Students considering spending time studying abroad are advised to begin gathering information as early as they can, since a great deal of correspondence is involved.

## VETERANS' BENEFITS

Students eligible to attend the University under the various Public Laws providing veterans' benefits should keep in close con-

## STUDENT SERVICES

tact with the Office of the Registrar. This Office provides advice and assistance to eligible veterans and is responsible for reporting to the Veterans' Administration. Counseling and other supportive services are offered by the Veteran's counselor on the second floor of Hill House.

## SELECTIVE SERVICE

Questions regarding Selective Service should be directed to the Office of the Registrar.

## STUDENT LIFE

Since intellectual and personal development derives from the students' cultural, social, and recreational activities as well as from their academic work, Oakland University seeks to provide the opportunities and the climate that will foster this development. Students are encouraged to participate in some phase of the University's comprehensive program of sports and recreational activities although there is no required physical education. Similarly, the pattern of available cocurricular experiences and activities in publications, discussion groups, student government, music, dramatics, and cultural offerings is intended to enhance the student's abilities to think, speak, write, organize, judge, and enjoy. Individual initiative is most important. Though help from faculty and staff is always available, students are responsibly and creatively involved in shaping and directing meaningful campus activity.

## STUDENT ORGANIZATIONS

There are over eighty student organizations at the University, each serving the community in a different way by providing a myriad of opportunities to engage in activities, discuss issues, and attend performances.

Check these organizations out, because they are the real heart of extracurricular life at this University. Even if you don't find what you want among the existing organizations, there are immediate opportunities for you to establish your own!

The Office for Student Organizations, located on the lower level of the Oakland Center, assists these many groups in planning events, handling finances and cutting red tape. The office also seeks to enrich life at the University . . . among other things, by providing a free activity or event every week of the year, by providing free travel information and low-cost campus events, by providing a free selling and buying service for used items, by being open even during the lunch hour and coffee breaks, and by smiling at you even when you don't smile back. There's more, but you are beginning to get the picture . . . try us!

## STUDENT BUSINESSES

A new policy around the University provides Oakland students with the opportunity to form and manage a business on campus.

## STUDENT LIFE

There are some guidelines which such groups must follow and their initiation is more difficult than that of a Student Organization, but the possibilities are enormous.

At present, both student publications, Focus: Oakland, and Warp Publications, Inc. fall into this category with several student business applications pending approval.

Full information and assistance in this area is available at the Office for Student Organizations, lower level, Oakalnd Center.

## STUDENT GOVERNMENT

The student government on campus is the University Congress. Congress provides an excellent opportunity for students to channel their wants, ideas and desires through a body which is very responsive to them.

At present, the transient status of students, the administrative hassles, and the University and state bureaucracies create quite an exciting role for the Congress. In fact, these circumstances can make things quite frustrating, but the birth of "new" ideas and ways of life for students make the frustration quite worthwhile and bearable. It's challenging, it's exciting, and it's hard - it's what you make it!

## COMMUTER SERVICES

The principal objective of Commuter Services is to promote two interdependent forces - closer positive identification with the University and more meaningful student-to-student encounter. People do or do not identify with an institution in direct proportion to whether or not they have membership in groups associated with that institution. Commuter Services is viewing its services, programs and efforts as means to encourage these two forces to operate, rather than as goals in themselves. Thus, counseling, Ride Pool, legal aid, etc. exist to facilitate deeper relationships with others and the transfer of more positive attitudes and openness to other University offerings.

Some of the services and programs offered through Commuter Services are:

- PEER ADVISING - Student Assistants are trained as academic advisors and troubleshooters and are always present to assist other students with any concern.
- RIDE POOL - Students are assisted in matching schedules within geographic areas so they can ride together. Ride pool members have a reserved parking lot, reduced rates and less hassle in driving each day.
- VOLUNTEER PROGRAMS - Gives students a chance to give a bit of themselves to a needy person or a project.
- LEGAL AID - Provides free legal advice for students.
- CONSUMER SERVICES - Provides information that will help students get the most for their money in all areas of spending.
- COMMUNICATIONS - RAP SESSIONS - Provide vibrant give-and-take encounters and also serves as a vehicle for new ideas, programs and ways of reaching the commuter student.


## DRAMA

The Student Enterprise Theatre (S.E.T.) is located at the south end of the campus in the Barn Theatre which was designed and constructed by and for the students, faculty and staff. S.E.T. produces one major show per semester and encourages student, faculty and staff participation in all aspects of production. Recent productions include Kopit's Indians, Peter Weiss' Marat/Sade, Alice in Wonderland with an original student score, Stop the World - I Want to Get Off, and J.B. S.E.T. enables students, faculty and staff to have experiences in acting, direction, production, set design and construction, lighting and costuming. Previous experience is not required to work with the organization. For information, please call 377-2245.

## FILMS

The Student Enterprise Film Society (S.E.F.S.) had its beginning as an outgrowth of random film showings on and off the campus. The society now has a regular weekly series with showings on Tuesday, Friday, Saturday and Sunday evenings. This encompasses a wide range of films from Art/Classic to the current run popular films. The goal of the society is to provide good and diversified films to the University community for entertainment as well as academic support programs. The society also has its own equipment for the producing of new or experimental films. For information, please call 377-2247.

## STUDENT LIFE

## LECTURES

Oakland University invites to its campus each year outstanding scholars, artists, authors, leaders in public life, and molders of national opinion, in order that members of the University community may hear, discuss, and evaluate a range of informed points of view on subjects of major significance in Lecture/Demonstration formats. Speakers on previous series have included Senator Muskie, Bill Baird, Julian Bond, Jane Fonda, John K. Galbraith, Florence Kennedy, Ralph Nader, Dick Gregory, and Arthur Koestler. For information, please call 377-2246.

## MUSIC

Oakland students may participate in the following music ensembles: Collegium Musicum (specializing in performance of Renaissance and Baroque music for voices and original instruments), Oakland Singers, University Chorus, University Concert Band, and the University Orchestra.

## STUDENT VOLUNTEER PROJECTS

Through Pontiac Tutorial (P.O.E.A.T.), Project Look Ahead, hospital volunteer work, and a variety of other projects under way or in the planning stages, students have meaningful opportunities to demonstrate their individual concern for their fellow man. Students have found that benefits realized from volunteer involvement more than adequately compensate for time spent.

## STUDENT PUBLICATIONS

Students may gain experience in creative writing, editing, and publishing through student publications. Focus Oakland and WARP attempt to provide a vehicle for student opinion. Oakland Undiapered is published annually to evaluate faculty members at Oakland. The Oakland Review publishes analytical research and critical articles written by Oakland University undergraduates. Publications are in a period of evolutionary change at Oakland University, and the field is now open for students to develop new and innovative publications.

## THE PHYSICAL EDUCATION— ATHLETIC PROGRAM

The Sports and Recreation Building provides a range of facilities for recreation; activities in eleven different sports can be carried
on simultaneously. The building houses a collegiate-sized swimming pool with diving area; courts for tennis, handball, paddleball, badminton, squash, basketball, and volleyball; equipment for fencing, gymnastics, modern dance, weight lifting, and wrestling. There are also outdoor courts, playing fields, and a ski slope with tow.

Oakland University's physical education program at present encompasses instruction in sports; spontaneous and planned recreation; sports clubs; competitive intramural and extramural sports; and competitive intercollegiate sports. The program is designed and organized as a service program for all men and women students as well as for the faculty and staff. It is directed to the participating individual, rather than to the spectator. Men and women with mutual interest in certain sports or recreational activities are encouraged to organize and develop clubs for instruction, practice, and competition both on and off campus.

Instruction is offered by the professional staff and spot-instructors in approximately twenty different sports and recreational activities. Aquatics and dance have important places in the program.

The facilities, equipment, and supplies are available about fourteen hours a day for spontaneous and planned recreation. Individuals, couples, and coed groups have the use of a variety of sports equipment, record players, table games, and so forth in the various rooms of the Sports and Recreation Building or on the adjacent tennis courts and playfields.

The competitive intramural sports program for men and women students and for faculty and staff includes eight to eleven different individual and team sports each term. Participants in the team sports may represent dormitory wings or floors, commuter districts, recognized campus clubs and organizations, or the faculty or staff. Participants in individual sports may also represent the foregoing groups, or they may compete as individuals unattached to any group. Students who participate in the intramural sports program are given further opportunity to compete with students from other colleges and universities during each term.

Students interested in intercollegiate sports competition in individual and team sports are encouraged to train for, to practice for, and to compete in regularly scheduled intercollegiate contests in cross country, soccer and volleyball, during the Fall Semester, basketball and swimming during the Winter Semester, and baseball, golf, and tennis during the latter part of the Winter Semester and during the Spring Session.

## STUDENT LIFE

Oakland University is pleased to compete with MIAA colleges, Adrian, Albion, Alma, Calvin, Hope, Kalamazoo, and Olivet; Aquinas College, Grand Valley State College, Ferris State College, Hillsdale College, Spring Arbor College, Lake Superior State College, Eastern Michigan University, Central Michigan University, Northern Michigan University, Western Michigan University, the University of Detroit, and Wayne State University, in one or more sports. Contests are also scheduled with colleges or universities in states and provinces bordering on Michigan such as Bowling Green University, Ashland College, and Wooster College in Ohio; University of Western Ontario and University of Windsor in Canada; University of Wisconsin-Milwaukee; Taylor University and Notre Dame University in Indiana; North Park College, Loyola University, University of Illinois-Chicago Circle, and Illinois State University at Normal, Illinois. Oakland University is a member of the National Collegiate Athletic Association.

## OAKLAND CENTER

The Oakland Center traditionally has served as the center of social, recreational, and cultural activity for members of the University community and for guests of the University. The facilities of the Oakland Center include services to student organizations, the University Book Center and Gift Shop, dining facilities for the entire community in a public cafeteria and grill complete with rathskeller, the Pickwick Games Area, several open lounges, an exhibit lounge, a barber shop, a cashier, and a laundry and dry cleaners. Miscellaneous items such as candy, magazines, newspapers, and smoking products are available at Charlie Brown's Information Desk. The recently enlarged Book Center is the campus source for books and general supplies, and specialty items are available at the Gift Shop. Full meals at lunch are available at the public cafeteria, and the grill is a popular spot for short orders and snacks.

A program office located on the lower level assists student organizations in the planning and implementing of programs. Space for student groups is available in the vicinity of this office. The staff is available also to help with the financing and publicizing of student programs.

## MEADOW BROOK MUSIC FESTIVAL

The Meadow Brook Music Festival, held each summer in the Howard C. Baldwin Pavilion of Oakland University, is now inter-
nationally recognized. The Detroit Symphony Orchestra is in residence on campus for eight weeks of concerts. Last year, the Orchestra, conducted by Sixten Ehrling was joined by soloists Alfred Brendel, Jerome Hines, Eugene Istomin, William Justus, Itzhak Perlman, Whittemore and Lowe, Earl Wild, and guest conductors Aaron Copland and Bruno Maderna. During the last season, the Detroit Symphony also played a series of seven pops concerts with such well-known guest conductors as Paul Freeman, Arthur Fieldler, Skitch Henderson, Mitch Miller, Michael Moores, and Meredith Willson and with soloists Phyllis Diller, Joann Freeman, Rita Reichman, and The D'Oyly Carte Opera Company. Additionally, the New York Philharmonic, conducted by Erich Leinsdorf and Andre Kostelanetz, joined by soloists Jorge Bolet, Kyung Wha Chung, and Christopher Parkening, presented three concerts on the Music Festival.

The Music Festival included The Pennsylvania Ballet Company in residence for four performances of classical and contemporary ballets, and The Erick Hawkins Dance Company was in residence for three performances on the Festival and a two-week modern dance workshop in the Oakland University Summer School.

Last summer's jazz and folk concerts included such solo artists as Count Basie, Ray Charles, John Denver, Ferrante and Teicher, Ella Fitzgerald, Pete Fountain, Arlo Guthrie, Peter Nero, Buffy Sainte-Marie, and Mary Travers, and groups included Woody Herman, Preservation Hall Jazz Band, and Doc Severinson.

## MEADOW BROOK THEATRE

The Meadow Brook Theatre has a resident repertory company of distinguished British, Canadian, and American actors under the artistic direction of Terence Kilburn. Mr. Kilburn has long been internationally known as an actor in motion pictures and on the stage in Los Angeles, on Broadway, and in London. He has also been a successful director of stage plays in Los Angeles and London.

During its highly successful past seasons, the Meadow Brook Theatre staged classics of British and American drama, a range of plays by European dramatists, and premieres of some contemporary plays. During the 1971-72 season Meadow Brook's productions included works by Shaw, Miller, Ibsen and Saul Levitt. The 1972-73 season features the plays of Moliere, Sean O'Casey, Clifford Odets, Luigi Pirandello and George Kelly. The seasons are always highlights in entertainment at Oakland University and the Rochester community.

## STUDENT LIFE

## ART EXHIBITIONS; THE UNIVERSITY ART GALLERY

The University Art Gallery, located in the north wing of Matilda Wilson Hall across from the Meadow Brook Theatre, presents art exhibitions in various fields of visual art as an important component of Cultural Affairs programming at Oakland. Both the changing exhibitions and the permanent collection of the Gallery stress recent twentieth-century art, Oriental art, and sculptures of primitive peoples, especially those of Africa, Oceania, and the Pre-Columbian Americas. Presented as well are exhibitions of works by faculty members and by students of the Department of Art.

Major showings presented in the past by the Gallery included contemporary art from the collections of Richard Brown Baker and of Mr. and Mrs. S. Brooks Barron, and of the "Art of the Decade: 1960-70, paintings from collections of Greater Detroit." Additionally, previous exhibitions have included African art drawn principally from gifts given to Oakland University by former Gov. G. Mennen Williams, Mr. and Mrs. Ernst Anspach, and Dr. and Mrs. Hilbert DeLawter; Melanesian art, a loan from the University Museum of Philadelphia; and Chinese Fan Paintings from the collection of Chan Yee-pong.

Gallery activities are supported by participation of the Department of Art and the Area Studies program at Oakland, private and public grants, and the Oakland University Gallery Associates.

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$$
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## COMMITTEES

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## UNDERGRADUATE CURRICULUM IN ARTS AND SCIENCES

## general requirements for the degrees of bachelor of arts and bachelor of science

There are four sets of requirements which a student must fulfill in order to graduate with the degree of Bachelor of Arts or Bachelor of Science. These are:

## I. The Residence Requirement

In order to graduate with the degree of Bachelor of Arts or Bachelor of Science, the student must:
A. Have completed 124 credits.
B. Have completed at least 32 of these credits at Oakland University, of which at least 16 credits must be in his or her elected major.
C. Be registered at Oakland University for at least 8 credits during the semester in which the degree is conferred.
D. Have a cumulative grade-point-average of at least 2.0. (Exceptions to the residence requirement may be obtained only by successful petition to the Dean of the College of Arts and Sciences.)
E. Be in substantial compliance with all legal curricular requirements.

## II. Requirement of Proficiency Certificate in English Composition

A certificate of proficiency may be awarded by the Department of Learning Skills upon satisfactory achievement in an examination at the time of entrance into the University. Any student unable to meet the required proficiency level may enroll in one of several Learning Skills courses to develop the writing skill necessary for certification. (For further details on Learning Skills courses, see p. 364.)

## III. The General Education Requirement

In order to graduate with the degree of Bachelor of Arts or Bachelor of Science, the student must:
A. Satisfy the distribution requirement by completing 32 credits or more (as specified by his or her chosen major) in appropriate departmental courses or in University courses or in equivalent programs in Allport College, Charter College, or New College.
B. Have completed at least 8 elective credits.

## IV. Requirement of an Independent Concentration or an Elected Major

In order to graduate, the student must have fulfilled all requirements for an independent concentration or an elected major. (For details concerning the independent concentration see pp. 107-109.) The student electing a major must have at least a 2.0 average in the courses required for the major. (For further details concerning the major, see pp. 109-111 and entries under particular departments.)

## THE INSTRUCTIONAL PROGRAM

The instructional program of each student seeking to fulfill the general requirements for the degree of Bachelor of Arts or Bachelor of Science has two components; either general education distribution requirement and an independent concentration or general education distribution requirement and a major.
I. General Education Distribution Requirement
II. Independent Concentration
III. The Major

## 1. General Education Distribution Requirement

The distribution requirement for the baccalaureate in the College of Arts and Sciences is designed to provide all undergraduates with minimal experience of the fields of letters, of the fine arts, of the social sciences, of the natural sciences, of symbolic systems, and of area studies.

The distribution requirement consists of 8 courses ( 32 credits). The academic departments and programs are arranged into 6 field groups, and students are expected to offer course work in at least 4 out of the 5 field groups outside their major field. The six field groups are:
A. Symbolic Systems
D. Social Science
B. Letters
E. Area Studies
C. Arts
F. Natural Science

## ARTS AND SCIENCES

Each student must take at least one course in 4 of the 5 field groups outside the major field, but there is no prohibition against the student sampling all 5. (It is within the authority of the major department to require courses from all fields as corequisites to major work.) In no case, however, may a student offer more than 3 courses ( 12 credits) in any one field group toward fulfilling the general education requirement. Any departmental or program course or courses may be used to satisfy the distribution requirement in the appropriate field group. Courses bearing the UC designation may be used to satisfy the distribution requirement in any appropriate field group. (See descriptions of University Courses, Exploratories, and Colloquia, p. 93.) The distribution requirement for the baccalaureate in the College of Arts and Sciences may also be satisfied by enrollment in, and completion of, the programs offered by Allport College, Charter College or New College. (For information on these programs, see p. 98.)
A. The field groups and the departments and programs offering courses within the groups are as follows:

## 1. Field Group A. Symbolic Systems

*Classics (courses marked GRK or LTN 114-115, 214-215)
Computer and Information Science (courses marked CIS) Linguistics (courses marked LIN)
Mathematics (courses marked MTH)
Modern Languages and Literatures (courses marked ML, CHE, FRH, GRM, HBR, HIUR, IT, POR, RUS, SPN, SWA emphasizing grammar, composition and conversation)
SCN 207 Semantics (crosslisted with LIN 207)

## 2. Field Group B. Letters

Classics (courses marked CLS; all literature courses marked LTN or GRK, excluding 114-115, 214-215. See Symbolic Systems.)
English (courses marked ENG)
History (courses marked HST)
Philosophy and Religion (courses marked PHL or REL)
Modern Languages and Literatures (CHE, FRH, GRM, RUS, SPN, TCL) (Only courses in literature either in translation or in the foreign language. Courses in literature offered by the Modern Language Department numbered 285, 286, 287 or having the letters MLT are in English. The readings are translations. The courses satisfy

[^2]
## ARTS AND SCIENCES

the distribution requirement in Letters. Other language courses count in the Symbolic Systems group.)
SCN 310 Philosophy of Rhetoric (cross-listed with PHL 365)

## 3. Field Group C. Arts

Art (courses marked $\mathrm{AH}=$ Art History; $\mathrm{SA}=$ Studio Art)
Music (courses marked MUS)
Theatre (UC 045 Introduction to Theatre)

## 4. Field Group D. Social Science

Economics (courses marked ECN)
Political Science (courses marked PS)
Psychology (courses marked PSY)
Sociology/Anthropology (courses marked SOC or AN)
ED 244, 245
ENV 151
Speech Communication (courses marked SCN except SCN 207, see Symbolic Systems; and SCN 310, see Letters.)
Social Studies 100 Introduction to Social Science

## 5. Field Group E. Area Studies

The Committee on Area Studies sponsors:
UC 062 Introduction to China
UC 063 Introduction to Japan
UC 064 Introduction to Africa
UC 066 Introduction to India
UC 068 Introduction to Latin America
UC 070 Introduction to the Slavic World
(The Committee will also designate other courses that may count in this group.)
6. Field Group F. Natural Science

Biology (courses marked BIO)
Chemistry (courses marked CHM)
Physics (courses marked PHY)
Environmental Studies (courses marked ENV, except ENV 151.
See Social Sciences.)
Science (courses marked SCI)
EGR 101

## B. THE UNIVERSITY COURSES

The University courses are designed to provide an extensive experience of the principal intellectual elements of a liberal and unspecialized education in arts, in letters, in the social sciences, and in the natural sciences, and mathematics. The courses, all of

## ARTS AND SCIENCES

which carry four credits, fall into three divisions: (1) courses which fulfill distribution requirements, (2) exploratories, (3) colloquia. Brief explanations of these divisions follow:

## 1. University courses which fulfill the distribution requirement for specific field groups are:

## A. Symbolic Systems

## UC 085 Mathematics

A course for non-science majors which emphasized the creative and deductive nature of mathematics. Material is selected from set theory, logic, number systems, algebra, geometry, topology, and axiomatics. Not open to those with previous credit in mathematics except with permission of the Department of Mathematics.

## B. Letters

## UC 018 Western Literature

Lectures on the literary traditions, forms, and conventions of the West, enabling the student to acquire a sound foundation for the understanding and judgment of literature.

## UC 036 Western Institutions

Lectures on exploration of the development of characteristic political, social, and economic institutions of Western society in the context of those ideas which have been advanced to explain, understand, or justify them. Beyond providing a sense of fact, the course develops the skills of critical injury into complex historical situations.

## UC 037 Western Philosophy

Lectures on some of the great attempts of Western man to give meaning and significance to his life, to justify his activities, and to discover the foundations of his beliefs.

## C. FINE ARTS

## UC 045 Introduction to Theatre

An introduction to all aspects of the theatre, including: the place and function of the theatre in both society and world art, history of the theatre, production, dramatic literature and criticism.

## UC 047 Introduction to Art

A survey of architecture, painting, and sculpture from prehistory to the present. The dualistic nature of the work of art is emphasized as the visual expression of artistic choice, individual and unique, yet part of a historical sequence of related forms. Major styles and periods and the fundamentals of visual anulysis are stressed. Studio practice is not required.

## UC 049 Introduction to Music

An introduction to the techniques of listening to great music, and a study of its elements, forms, and styles. Begins at the level of the student lacking previous musical experience. Note: Prospective music majors should consult with the Department of Music before registering for this course.

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## D. SOCIAL SCIENCES

## UC 052 Introduction to American Politics

A study of the process of decision-making in the American national government and of the ways in which parties, groups, and individuals work to produce public policy in the Congress, the Presidency, and the courts.

## UC 054 Introduction to Social Psychology

Observational, experimental, and analytical techniques for the objective study of relationships among men and the effects of these relationships upon the participants in them. The analysis of social functions and roles; the study of the development and change of attitudes, beliefs, and values; the influence of social groups on the individual; and the development of personality in relation to the social milieu are considered. Required of all teaching candidates, who should take this course in one of the first two semesters.

## UC 056 Introduction to Economics

Topics include national income and employment, money and banking, government expenditures and taxes, inflation and deflation, economic growth, prices in competitive and monopolistic markets, labor problems, and international trade. Note: Prospective economics or management majors should take this course in the first or second semester.

## UC 058 Introduction to Sociology

An introduction to the basic principles, concepts, and theories of sociology relating to the study of man as a participant in group life. Particular attention is given to social structure, cultural processes and patterns, socialization and personality development, social stratification, collective behavior, population, and the major institutional areas.

## E. AREA STUDIES

## UC 062 Introduction to China

A study of the traditional civilization and modern development of China. Topics include history, philosophy and religion, literature and the arts, government, and social organization.

## UC 063 Introduction to Japan

A study of the traditional civilization and modern development of Japan. Topics include history, philosophy, and religion, literature and the arts, government, and social organization.

## UC 064 Introduction to Africa

An introduction to the geography and ecology of Africa and the history and cultures of African peoples. Attention will be directed also to social organization; economic, political, and religious systems; and problems of social change.

## UC 066 Introduction to India

A study of the traditional civilization and modern development of the Indian subcontinent. Topics include philosophy and religion, literature and the arts, history, political structure, and social organization.

## ARTS AND SCIENCES

## UC 068 Introduction to Latin America

A study of the traditional and modern forces in Latin America, the cultures of Indian, European, and African peoples, and a survey of contemporary social and political problems of the area.

## UC 070 Introduction to the Slavic World

A study of the traditional civilization and modern development of the Slavic peoples with special emphasis on the Russians. Topics include ethnography, history, literature and the arts, political organization, and the role of the Soviet bloc in the modern world.

## F. NATURAL SCIENCE

UC 086, UC 087, UC 088, UC 089 Science
Courses for non-science majors which provide knowledge and appreciation of science through readings, discussions, demonstrations, and laboratory work.

## UC 086

Selected topics in modern biology. The course will involve a discussion of the nature of living things at various levels of biological organization from molecules to man. Examples will be drawn from the following topics - molecular biology, reproduction, inheritance, embryonic development, structure and function of the adult organism, evolution, the relationship of the organism to the environment, and the potential danger of man's influence on the environment.

## UC 087 and UC 088

These courses will deal with selected topics which emphasize the ramifications of the effects of science and technology on man and his environment.

## UC 089

Selected topics in physics and/or astronomy chosen to illustrate the aims, development, and limitations of science. This course is especially designed for, and open only to, non-science majors. High school algebra is a prerequisite.

## 2. Exploratories

Exploratories may be taught by faculty representing all academic units in the University. Classes are designed to permit an orderly but autonomous examination of a subject, a topic, or an area of intellectual concern chosen by the instructor. Further, exploratories are limited in size to enable meaningful discussion of ideas and to encourage a close relationship between students and instructors. These classes may be elected by freshmen and sophomores and may be used to meet the general education distribution requirement if the course number carries the specific field group letter designation (e.g., an exploratory designated UC OIE would be counted toward fulfilling the distribution requirement in Area Studies).

Exploratories carry four credits each and are offered in the following groups:

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## UC OIA Symbolic Systems

Study of materials from the fields of foreign languages, linguistics, computer science, and mathematics to gain some familiarity with the structure and use of a system of symbols other than the English language.

## UC 01B Lełters

Studies from a variety of viewpoints of the unique interpretation of human experience which literature represents; of the nature and development of significant social institutions and ideas of the ancient and modern world; and of attempts to organize knowledge and explain phenomena according to diverse philosophic or religious convictions.

## UC OIC Fine Arts

Studies in art, music, or theatre designed to enhance the student's disciplined understanding of and engagement in the experience of visual and auditory modes of art.

## UC OID Social Science

An exploration of selected problems, ideas, issues, or topics under the direction of faculty drawn primarily from the social science fields of anthropology, economics, political science, psychology, and sociology.

## UC OIE Area Studies

An exploration of selected problems, ideas, issues, or topics in African, Chinese, Indian, Latin American or Slavic studies under the direction of faculty drawn from the area studies program.

## UC OIF Nałural Science

Studies in selected areas of the natural sciences. These exploratories, taught by faculty drawn primarily from the fields of biology, chemistry, engineering, and physics, are designed for students with no necessary previous preparation in mathematics or the natural sciences.

## 3. Colloquia

The colloquia are limited in enrollment and deal with significant cross-disciplinary issues of broad import. They are designed to provide an opportunity for junior and senior students to study outside their major fields in any one of the last four semesters of their residence. The colloquia (UC 09A-F) are offered by faculty drawn from all disciplines and emphasize discussion, reading, research, and writing. Colloquia may be used to meet the distribution requirement if the course number carries the specific field group letter designation (e.g. a colloquium designated UC 09B would be counted toward fulfilling the distribution requirement in Letters). Each colloquium will study intensively a broad problem of perennial or contemporary concern; students will be expected to contribute to the discussion the insights of whatever disciplines they have studied and thus will gain an idea of their broader relevance.

Colloquia carry four credits each and are offered in the following groups:

## UC 09A Symbolic Systems

Studies of broad topics in linguistics, computer science, and mathematics and of the relations between these areas and other human activities.

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## UC 09B Letters

Studies in literature, history, philosophy or religion as they relate to a variety of issues in human experience.

## UC 09C Fine Arts

Studies in the arts and their relation to broad human and social problems.

## UC 09D Social Science

Studies of contemporary social problems, conducted by faculty drawn primarily from the social and behavioral sciences: anthropology, economics, psychology, sociology, and political science.

## UC 09E Area Studies

Studies of current problems in Africa, India, China, Latin America, or the Slavic world and of the relations between these areas and North America and Europe in the present and future.

## UC 09F Natural Science

Studies of scientific issues of broad significance and of the role of science and technology in the modern world.

## 4. University Forum

Students may take one or two 2-credit courses designated University Forum as elective credits. Each time the University Forum is offered it will be devoted to the study of a new subject. The course may be repeated for credit only once for a total of 4 credits.

## UC 04 University Forum

Each University Forum will explore in lecture format current views on a subject of topical importance and interest. Each course will be presented by faculty drawn from multiple disciplines. Visiting experts will address the classes, and films will be used as resource material. Open to all students who have completed 28 or more credits.

## ALLPORT COLLEGE PROGRAM

## Faculty:

Chairman: Carl R. Vann, Ph.D., Professor of Behavioral Sciences and Political Science (on leave 1972-73)
Acting Chairman: Philip Singer, Ph.D., Professor of Behavioral Sciences and Anthropology

## Adjunct Faculty:

Enrique Araneta, M.D., Adjunct Professor of Behavioral Sciences (Psychiatry)
Daniel E. DeSole, M.D., Adjunct Professor of Behavioral Sciences (Psychiatry)
John Scotti, M.D., Adjunct Professor of Behavioral Sciences (Medicine-Surgery)
Ralph Cash, M.D., Adjunct Associate Professor of Behavioral Sciences (Pediatrics)

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George Gerber, M.D., Adjunct Associate Professor of Behavioral Sciences (Medicine-Obstetrics-Gynecology)

Melvyn Reubenfire, M.D., Adjunct Associate Professor of Behavioral Sciences (Cardiology)

Michael Glanz, B.S., Adjunct Assistant Professor of Behavioral Sciences (Medical Care Organization)

Allport College is an inner college program founded in 1969 with the goal to provide throughout the undergraduate years, both student-faculty contact and collateral program affiliations, courses, and activities.

Behavorial Sciences and their interrelationships with the health sciences and humanities are central to the program of Allport College. The Allport curriculum will focus on the study of two major aspects of the Behavorial Sciences: analysis of the basic facts of human behavior, individual and social, and the application of these facts in areas such as education, health administration, communications, and the problems of emerging countries.

Allport College does not offer a major in behavorial sciences; its program may be pursued in conjunction with a major in Arts and Sciences departments. However, Allport College is prepared to sponsor a student in an independent concentration with a behavioral science emphasis.

This option should be of particular appeal to pre-professional students in medicine, law and the health-related professions. For further information concerning independent concentrations see pp. 274-280 and consult Prof. Singer.

The College uses various disciplines to relate: culture and personality; language, culture, and behavior; various modes of institutional behavior (e.g., political, bureaucratic, family, community, national, and international); science and technology and their impact on the human organism and organization; and their interconnections with institutional and scientific enterprises. Optional off-campus research and internships are available in the United States and overseas as applied aspects of the educational objectives.

Students enrolled in the Allport College program will be expected to meet all the regular academic requirements of the College of Arts and Sciences (see pp. 90-91) but they will be able to fulfill many of these requirements by taking courses especially planned and taught by the Allport College faculty. In the fresh-

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man year each student will be required to enroll in a two-semester Introduction to Behavioral Sciences course (AC 101-102). This sequence satisfies the university distribution requirement in the social sciences. It also meets introductory course requirements in some social science departments.

Sophomore students may take University courses meeting other distribution requirements under the direction of Allport College and with the cooperation of the departments. These courses are developed in close relationship to a program of guest scholars. These adjunct scholars will visit the campus for periods of several days during which they will have extensive contacts with students and faculty.

The Allport College experience also offers throughout the four years an opportunity for off-campus study. These programs may be initiated by individual students. Allport also has developed a number of on-going off-campus programs in which students work on-the-job and under the supervision of professionals.

## Distinctive Features of the Allport College Program

- This academic program is especially designed to provide the students with an experience relevant to the contemporary world.
- The use of small classes and tutorial experiences is coupled with large-group activities. Among the group events are traditional activities such as lectures and debates, as well as somewhat unusual cultural demonstrations and participatory activities.
- Students in Allport College are afforded opportunities for off-campus applied research.
- Upon completion of the Introduction to Behavioral Sciences (AC 101-102), students of the College may, with the cooperation of the academic departments involved, proceed directly to advanced course work.
- All incoming first year students may apply for admission to Allport College. The program of Allport College is also available to transfer and upper-division students. Students planning on majors with specially detailed requirements should consult with their advisers; the College is willing to discuss adjustments. Decisions on admission will be made prior to the Fall Semester. Enrollment is limited.
- Allport offers a unique faculty which blends the health professions with the social-behavioral sciences.


## ARTS AND SCIENCES

## COURSE OFFERINGS

# AC 101-102 Introduction to Behavioral Sciences 

(4 credits each)
An introduction to the methods, data, and insights of the behavioral sciences with emphasis on anthropological, sociological, psychological, ethological, and political research. The implications and relevance of these basic and applied studies for the behavior of individuals, groups, and nations are examined. (This is a two-semester course. It is required of all students in Allport College and meets the social sciences distribution requirement. AC 101-102 is also open to any student at Oakland University on an elective basis.)
AC 103, 104 Preceptorial
(4 credits each)
An exploration in depth of a significant issue in the behavioral sciences emphasizing group discussion and individual contributions.

## AC 202 Research Techniques and the Behavioral Sciences

 (4 credits)This course is designed to teach in depth the reference materials and research methods for the various disciplines in the behavioral sciences.

## AC 205 Evaluation of Music (4 credits)

A course designed to encourage active, discriminating listening and based on the premise that verbalization about one's auditory experiences can lead to enhanced enjoyment and understanding.
Prerequisite: MUS 100.

## AC 300 Applied Research in the Behavioral Sciences <br> ( $4,8,12$, or 16 credits)

A semester of independent study and applied research undertaken away from the University. Projects will be developed in cooperation with and supervised by Allport faculty within the framework of methodology and explanation in the behavioral sciences.
Prerequisites: AC 101-102, or permission of Instructor.
AC 499 Senior Seminar in Behavioral Sciences (4 credits)

## D. CHARTER COLLEGE PROGRAM

Faculty:
Chairman: Robert L. Stern, Professor of Chemistry
Vise Chairman: William C. Fish, Assistant Professor of Education
Sheldon L. Appleton, Professor of Political Science
Edward A. Bantel, Professor of Education and Psychology
Alfred Lessing, Professor of Philosophy
Dolores Burdick, Associate Professor of French
Julien Gendell, Associate Professor of Chemistry
Norman M. Brown, Assistant Professor of German
James D. Graham, Assistant Professor of History
Rosalyn Sherman-Lessing, Assistant Professor of Philosophy

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Charter College was formed in 1965 in an effort to retain some of the advantages of the small college within the structure of a larger, growing university. We the members of the Charter College community believe that in a smaller, more intimate social-academic context students and faculty can work together to produce a program which allows a self-selected, but representative, group of university students to integrate the various aspects of their college life-academic, personal, residential, extracurricular-while allowing individuals the freedom to develop their own unique personalities and to grow in areas of personal interest. The College welcomes innovative teaching methods and student participation in the making and implementing of College policies. Charter College courses, which grow out of faculty and student interest, are general education courses which often aim to be interdisciplinary, dealing with topics of academic, societal and personal concern. We try to offer courses which students want to take and which particular faculty members are enthusiastic about teaching. The main focus of Charter College courses is not a particular area or subject matter, but rather the development of individual inquiry and judgement in dealing with concerns which may span or extend beyond traditional academic boundaries.

Charter students satisfy the College of Arts and Sciences' general education requirements by taking 32 credits of Charter College courses, usually distributed over six to eight semesters. They choose a major or an independent concentration from the baccalaureate programs offered by Oakland University and meet the requirements of their elected major or independent concentration in accordance with the University regulations. Charter students are exempt from the University General Education course requirements. All Charter courses are currently graded S (satisfactory) or N (no grade). Grading and competition for grades are deemphasized.

Less than fifty freshmen are accepted into Charter College each year. The College is not in any sense an honors college. We welcome applications from University students from any background, with any high school grades, regardless of their intended majors or whether they are commuters or residents. Admission to the college is decided by a panel of faculty and students. Other than a reasonable balance between men and women we aim simply at achieving a cross section of Oakland University students with a wide range of interests and personalities who are interested in the educational aims and processes of Charter College. Classes are kept as small as basic university economics will allow, usually ranging from 10 to 30 students per course.

The College believes that students should be as responsible as possible for their own educations. One of the strong features of Charter is the opportunity to do a large amount of work in independent study classes. These are courses designed by you as students which you carry out on your own or in groups with the guidance of a faculty member. Independent study may be taken for credit (from 1-16 hours per semester is allowed) and any topic is legitimate, provided there is educational merit to the course you have designed.

To help integrate the personal and academic programs, the Charter offices, classrooms and lounge are all together on the first floor of Vandenberg Hall. Any Charter students who are residents may live together if they so desire. The college is now looking into the possibility of having a dormitory of its own, which the students in the college will plan.

Charter College believes in flexibility, experimentation, and responsiveness to the needs and suggestions of its students and faculty. Hence its organization and curriculum have in the past undergone almost constant revision. We are trying to become a more cohesive, more effective academic community in which individuals can profitably inquire into and deal with some of the problems of higher education and of our society. At present, too, the College is changing. The Forums and Town Meetings of the whole Charter community provide a structure and incentive for facilitating such change and revision. Because change and flexibility are in this way built into the structure and aim of the College it is difficult to provide an accurate catalog description of its program that will be informative and yet not outdated. Therefore the College will from time to time issue more detailed and up-to-date statements describing its structure, curriculum, and current areas of concern. The most recent such statement will be available from the Charter College office to all incoming freshmen and to anyone else who desires more specific and current information about the College. Application forms are available during freshman orientation or on request from the Charter College office. The College will consider new applications for admission at any time.

## COURSE OFFERINGS

Course offerings in Charter College vary from semester to semester according to the interests of its students and faculty. The particular courses to be offered during any semester are announced about a month before the end of the preceding semester. Detailed descriptions of each course to be offered are also made available

## ARTS AND SCIENCES

at this time in the Charter College office so that Charter students may have adequate information on which to base their decisions.

## E. NEW COllege Program

## Faculty:

Chairman: F. James Clatworthy, Assistant Professor of Education
Richard J. Burke, Professor of Philosophy
Norman Susskind, Professor of French
Marc E. Briod, Associate Professor of Education
Peter J. Bertocci, Assistant Professor of Anthropology
Edward M. Liddle, Assistant Professor of Education
Clifford I. Pfeil, Assistant Professor of Music
Mary Ann Vosgerchian, Instructor in Learning Skills
Thomas Aston, Visiting Lecturer (on leave 1972-73)
William Brewster, Jr., Visiting Lecturer in New College
Bertha M. Malm, Visiting Lecturer in New College
New College provides an alternative to the College of Arts and Sciences' general distribution requirement of 32 credits and an opportunity for upperclassmen to pursue an independent concentration in lieu of a departmental major.

In the lower division New College provides a program for entering Freshmen or Freshmen transfers that satisfies the General Distribution requirement of 32 credits. In four semesters, students will be able to participate in experiential and academic courses that will assist them in becoming more creative, knowledgeable and autonomous.

In the upper division New College provides an opportunity to work out an Independent Concentration with an emphasis in Creative Arts or Community Studies, or to select seminar or Field Study courses to supplement a Departmental major. For further information concerning independent concentrations, see pp. 274-280 and consult Prof. Clatworthy.

Participation in the affairs of the College is strongly encouraged so that students and faculty have a sense of responsibility for their own community. The faculty attempts to provide an environment that stimulates the individual to learn, and to know herself/ himself better through a wide variety of academic, artistic, experiential and social experiences. Small classes wtih a high degree of interaction between students and faculty are an important part of the College.

New College is not isolated from the University but rather seeks to provide a unique learning environment within the University.

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Faculty who teach in New College also teach in academic departments and represent a distinguished cross-section of academic disciplines.

When students join New College only a part of their total course work is taken through New College classes. This gives students an opportunity to take introductory courses in their major field or to sample various academic or pre-professional courses to make that often difficult decision that will determine their undergraduate major. New College classes and the faculty/staff are often of great advantage to the student who is undecided about the major or post college career.

The core program for the lower division consists of the following courses:

## Freshman Year:

NC 105 (Fall), NC 106 (Winter) Images of Man (4 credits each)
This course is unique at Oakland University in combining in a two semester course the study of both Eastern and Western cultures. The course tries to expand your mind by emerging you in a series of cultures other than your own. The instructors for this course represent a variety of disciplines - philosophy, literature, history which can shed light on human nature and culture. Their role will not be that of authorities on the cultures studied, but rather guides and models in the exercise of intelligence and imagination. They may know only a little more than you about African culture, for example, but they know how to find out about it. What you can learn from them is not facts (books are better for that), but skills and attitudes that have many uses, and a sense of the joy of learning. Above all, however, this course is designed to help students learn from each other through pooling information and comparing attitudes in class, reading and reacting to each other's ideas, and participation in group activities. For when the subject is man, we are all students, and we all have something to teach.

## NC 111 (Fall), NC 112 (Winter) Creative Arts (4 credits each) Workshop

This course explores the various dimensions of creativity and literacy in music, theatre, dance and art, and is designed to allow you to test and explore your creativity, to loosen your inhibitions, but not to train you to be a professional. The emphasis will be on the experiential dimensions of learning with a second semester goal of improvisation that will work toward a culminating New College Arts Festival.

## Sophomore Year:

## NC 200 (Fall or Winter) Natural Science Workshop (4 credits)

This course will involve the student in explorations of various science laboratories on campus and introduce the students to the value of science in dealing with contemporary problems in community development. The course will be of practical value for the non-science major and will offer the science major an opportunity to further his own research interests.
NC 202 (Winter, Spring-Summer, Fall) Field Term (12 credits)
New College Field Term pioneered a full semester off-campus study at Oakland University and offers a student an opportunity to gain valuable academic and

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experiential knowledge in a learning environment chosen by and beneficial to the student. Field Terms have been done with well known free schools on the East or West coast; an alternative newspaper in Atlanta, Georgia. (The Great Speckled Bird) or the New York Times; a civil rights and community support group for blacks in Kenbridge, Virginia; residential treatment centers for emotionally disturbed children (Browndale); a prison support group in Chicago; and overseas Field Terms in Israel, Belize (British Honduras), Italy and Great Britain. The possibilities are only limited by your imagination, energy, and enthusiasm. Prior to enrollment a student must file a plan approved by the Director of Field Term.

## NC 211 Mime <br> (2 credits)

An active examination of the techniques and styles of classical mime, dealing specifically with the spiritual preparation for mime and the practice of mask-making. Offered occasionally.

## NC 212 Contemporary Dance <br> (2 credits)

The emphasis in this course will be on learning modern dance and ballet techniques and developing these techniques into dance studies utilizing rhythm, space, and energy. Offered occasionally.

## UPPER DIVISION (Junior-Senior year)

Independent Concentrations in Creative Arts or Community Studies
New College will accept a limited number of students who have either completed their general education requirements or who transfer to Oakland University and wish to work toward an independent concentration (in lieu of a departmental major) in either Creative Arts or Community Studies.

## Creative Arts

Opportunities for experimental programs in Dance, Music, and Theatre (Acting or Theatre Productions), Commercial Art, Studio Art, Experimental Architecture (Domes and Inflatables), and synergistic programs in Art, Music, Dance and Theatre. Individual or Group Learning Contracts through New College and a wide variety of courses available through various academic departments on campus.

## Community Studies

Opportunities for experimental programs in the social sciences including, but not limited to, Public Interest Research, Community Organization work, Urban Organic Gardening, adaptations of world game to local communities, and synergistic applications of the social sciences to community development. A Seminar in Community Studies through New College during the Junior year and a wide variety of academic courses available through various academic departments. Individual or Group research projects during the Senior year to provide for up to a full semester off-campus study/research opportunity.

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New College does not offer a series of required courses, but an opportunity, unique at Oakland University, to take academic courses that seem relevant to your study and work interests from various departments and supplement them with first hand experience through Independent Learning Contracts and off-campus studyresearch or service opportunities in the S.E. Michigan area, out-ofstate, or abroad.

Why have a concentration that only gives you theory and isolated classroom experiences? Why not an independent concentration that allows you to take all the necessary courses in theory, but supplements that theoretical knowledge with realistic learning experiences out in the communities, agencies, or organizations that represent the growing edge for the arts and social sciences?

Courses offered:
NC 305 (Fall)
NC 306 (Winter) Seminar in Community (4 credits each)

## Studies

This course will involve the student in preparing a research-project proposal which will be developed out of theoretical and practical data.

NC 311 (Fall)
NC 312 (Winter) Independent Learning In (4 credits each) Creative Arts
To enroll in this course a student will have to submit a learning contract signed by supervising faculty or qualified teacher prior to registration.
NC 401 (Fall, Winter) Independent Study (4, 8, 12 credits) [Individual or Group]
A research or creative arts project on a topic of specific interest to the student's major or to the Independent concentration in Creative Arts or Community Studies.
NC 403 (Fall, Winter) Apprentice Teaching (4 credits)
Apprentice teaching in the College. Approval is required at least a semester in advance.

## II. Independent Concentration.

(See also paragraph IV of the General Degree Requirements.) An independent concentration of courses may be offered in lieu of a customary major in partial fulfillment of the requirements for the Bachelor of Arts degree. The regulations governing such an independent concentration in the College of Arts and Sciences are as follows:
A. That the credits in an independent concentration be not less than 40 nor more than 60 , such credits to be in courses above the introductory level.

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B. That these 40 to 60 credits must be in an organized program of study exhibiting sufficient coherence and depth to warrant being offered in lieu of a standard concentration or major in partial fulfillment of the requirements for the Bachelor of Arts degree.
C. That this program shall be developed in consultation with an adviser who has authority to recommend its approval by the Committee on Instruction and to attest to its satisfactory completion for graduation purposes.
D. That the Committee on Instruction (or a duly constituted committee established for the purpose) approve all such programs (and subsequent modifications) and sponsor students in independent concentrations for the degree.
E. That the Committee on Instruction be charged to develop procedures concerning independent concentrations.
F. That students electing to offer an independent concentration in partial fulfillment of the requirements for the Bachelor of Arts degree must fulfill all requirements for the degree other than the requirement of an elected major.

It should be noted further (a) that students entering as freshmen will be admitted to the independent concentration program only after completion of 32 credits, and (b) that transfer students with 32 or more credits may elect the independent concentration with the provision that their first term in this program is to be regarded as probationary. Any students wishing to combine an independent concentration with a teaching credential should consult the School of Education and a major department in the College of Arts and Sciences to be sure that all pertinent requirements are met.

Advisers for the academic year, 1972-1973 are:
Professor Max Brill (Psychology)
Professor Charles Broh (English)
Professor Steven Miller (Chemistry)
Professor James Ozinga (Political Science)
Professor Philip Singer (Behavorial Science and Anthropology, see Allport College)

Each student is expected to present to his or her adviser a reasoned statement of motives for electing an independent concentration and to propose a course program that he or she feels will help him or her achieve his or her educational objectives. The adviser will exercise his judgment concerning the educational objectives and academic soundness of the proposed course of studies. He will help

## ARTS AND SCIENCES

the student refine his or her proposal and guarantee its worth as a substitute for a major. This program is to be submitted to the Committee on Instruction, which may approve, disapprove, or modify the proposal.

Students are encouraged to use the Fall Semester of 1972 to plan their programs in consultation with authorized advisers, and to present their programs to the Committee on Instruction by November 15 for action by the Committee prior to the beginning of the Winter Semester of 1973.

Only in exceptional cases will programs be acted upon at the beginning of the Fall Semester of 1972.

## III. The Major

(See also paragraph III of the General Degree Requirements.) Each student seeking candidacy for the degree of Bachelor of Arts or Bachelor of Science who does not offer an independent concentration must choose a major and fulfill the specified requirements as prescribed by the relevant department or, in certain cases, the relevant interdepartmental committee.
A. The College of Arts and Sciences offers the following liberal arts majors. (For more detailed information, see material under each department.)

1. Art History
2. Studio Art
3. Biology
4. Chemistry
5. Classical Languages
6. Latin
7. Economics
8. English
9. History
10. Linguistics
11. Mathematics
12. Chinese Language and Civilization
13. French
14. German
15. Russian
16. Russian Language and Civilization
17. Spanish
18. Latin American Languages and Civilization
19. Music Theory and Composition
20. Music History and Literature
21. Philosophy
22. Physics
23. Political Science
24. Psychology
25. Sociology
26. Anthropology
27. Sociology and

Anthropology
B. The College of Arts and Sciences offers secondary teaching majors under the auspices of the following departments. (For

## ARTS AND SCIENCES

detailed information see material under each departmental entry and p. 315 of the section of this catalog devoted to the School of Education.)

1. Biological Sciences
2. Chemistry
3. Classical Languages and Literatures
Secondary teaching major in Latin only.
4. Mathematics
5. Modern Languages and Literatures
Secondary teaching majors in French, German, Russian, and Spanish only.
6. English
7. Music
8. Physics
C. Minors are not required by the General Degree Requirements for the degree of Bachelor of Arts. However, they are required of prospective secondary school teachers seeking certification by the Department of Education of the State of Michigan. Consequently, the following departments and interdepartmental groups make available minor programs for such students. (For more detailed information see material under each departmental entry and p. 315 of the section of this catalog devoted to the School of Education.)
9. Art
10. Biological Sciences
11. Chemistry
12. English
13. History
14. Mathematics

## 7. Modern Languages and Literatures

8. Physics
9. Social Sciences
10. Science
11. Speech Communication
D. The College of Arts and Sciences offers an interdepartmental secondary teaching major under the auspices of the Committee on the Social Studies Program. This Committee also makes available a secondary teaching minor in social studies. (See pp. 278-279.)
E. The College offers an interdisciplinary major in elementary education under the Committee on Elementary Education. (For further information, see pp. 315-318 of the section of this catalog devoted to the School of Education.)
F. The College offers several standard concentrations in special programs which are pursued in conjunction with a departmental major. These concentrations are:
12. East Asia Studies (See pp. 267-268.)
13. Environmental Studies (See pp. 275-276.)
14. Linguistics (See pp. 178-180.)
15. Premedical Studies (See p. 276.)

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5. Religious Studies (See pp. 277-279.)
6. Slavic Studies (See pp. 270-271.)
7. South Asian Studies (See pp. 269-270.)
8. Speech Communication (See pp. 261-262.)
G. The College of Arts and Sciences through several departments, through Allport College and New College, and through community service courses offers various programs for off-campus study. (See pp. 104-107 and pp. 279-282.)
H. The College offers limited work in geography (see p. 283).
I. The College offers work in science for elementary education majors. (See p. 283.)

## MAJOR STANDING AND GENERAL REQUIREMENTS FOR MAJORS

There are no College regulations governing admission to major standing or retention in major standing. Each department establishes its own procedures in these areas. At the earliest possible moment students should consult the chief advisor of the department in which they wish to major to be sure they are eligible for departmental programs, are fulfilling the proper prerequisites and corequisites, and can meet all requirements for departmental sponsorship for the baccalaureate. Failure to consult the advisor and follow the appropriate sequence of courses may delay graduation.

## MAJOR DEPARTMENTS OF

 INSTRUCTION AND COURSESDetailed requirements for majors, the departmental courses of instruction, and other pertinent information regarding departmental programs may be found under each department's entry.

## regulations Governing courses

1. All courses are assigned four credits unless otherwise specified.
2. A course sequence joined by a hyphen (e.g., GRK 114-115) must be taken in the order indicated. The first course in such a sequence is regarded as a prerequisite to that following. A department has, however, the right to waive these and any other prerequisite course requirements.

## ARTS AND SCIENCES

3. Course numbers separated by commas (e.g., HST 214, 215) indicate related courses, which may be taken in any order. Departmental or program requirements may govern the order in certain cases, however.
4. With the exception of University courses, a special series of course numbers such as 000 to 099 are reserved for courses specially designed to enrich academic skills. (Not more than 16 credit hours in such courses and in tutorial work may be presented toward graduation requirements.) University Courses and courses numbered 100 to 299 are introductory or intermediate undergraduate courses. Courses numbered 300 to 499 are advanced courses primarily for undergraduates. Courses numbered 500 and above are primarily for graduate students.
5. The Registrar reserves the right to cancel any course in which there is insufficient registration.

## ARTS AND SCIENCES

## DEPARTMENT OF ART \& ART HISTORY

Professors:<br>Carl F. Barnes, Jr., Chairman (Art History)<br>John B. Cameron (Art History)<br>Associate Professor: John L. Beardman (Art)<br>Assistant Professor: P. Michael Brakke (Art)<br>Charles E. Brownell, Jr. (Art History)<br>Ralph F. Glenn (Art History)<br>Cecelia F. Klein (Art History)<br>Alvern A. Lostetter, Jr. (Art)<br>Lawrence S. Rittenberg (Art)

The Department of Art \& Art History offers programs of study leading to the degree of Bachelor of Arts with majors in art history and in studio art. The department also offers a secondary teaching minor in art.

The artists and historians who direct this program are dedicated to creative, disciplined training of both majors and non-majors. While the undergraduate major in art is not professionally careeroriented as such, the major receives preparation for graduate study in art history or studio art which may lead to a professional career in college teaching, museum curatorship, editorial work with art publishing firms, or independent practice of film-making, multimedia, painting, printmaking, and sculpture.

The non-major discovers that undergraduate study of art history or studio art reinforces his grasp of the historical or analytical aspects of other specializations within the liberal arts curriculum. Knowledge of art helps to prepare all students for discerning cultural citizenship and enriched perception of creative values. Majors in disciplines other than art are encouraged to take, with the approval of their departmental advisers, period or subject courses in the history of art and studio art electives as corollaries to upper-division offerings in their own fields of specialization.

The department strengthens its program of instruction through group visits to the Detroit Institute of Arts and other public and private collections in the area, by the visits of artists who offer criticism of student work, and by guest lecturers. It also presents exhibitions in the University Art Gallery in Wilson Hall, including an annual faculty exhibition and two student exhibitions each year which present the best works by studio art majors and non-majors.

## ARTS AND SCIENCES

In 1971 an Archives of Michigan Architecture was established in the department. This research facility, at present limited in scope and in materials, will expand to make available to students original documentation concerning the architectural heritage of Michigan and especially of the southeastern area of the state. Students enrolled in Art History 350 and 450 are assigned projects related to these archives.

Each year several majors and minors in art are selected to work as student assistants in the department. Appointed on the basis of responsibility and academic achievement, these students receive training, for which they are remunerated, and experience useful for future graduate specialization and career work.

## Requirements for the Liberal Arts Major in Art History

Art History 100 or Art History 101, 262, 350, 480, and seven additional departmental courses in art history (one of which must be at the 400 -level), a total of 44 credits, are required. One course must be taken from each of the following sequences:

Art History 300 through Art History 302
Art History 310 through Art History 314
Art History 320 through Art History 326
Art History 330 through Art History 334
Art History 340 through Art History 342
Required corequisites for the art history major are (a) Studio Art 100 and Studio Art 101 and (b) four semesters of German and two semesters of French.

Majors who intend to apply for admission to graduate school in art history should consult with the departmental advisor (Professor Brownell) or chairman (Professor Barnes) in the sophomore year.

## Art History Courses

Art History 100 -level and 200 -level courses have no prerequisites; Art History 300 -level courses have Art History 100 or Art History 101 as a prerequisite; Art History 400 -level courses are seminars and have Art History 100 or Art History 101 and 12 additional credits in art history as prerequisites.

All art history courses are for one semester and carry four credits.

## Art History 100 Introduction to Art History

An introduction to the history and analysis of the visual arts. Studio work is not required. (May not be taken for credit by students who have passed UC 047.)

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## Art History 101 Introduction to Art

Art History 100 with studio laboratory for education majors. (May not be taken for credit by students who have passed UC 047 or Art 147; not offered 1972-1973.)

## Art History 200 African Art

The arts of the tribal peoples of West, Central, and East Africa. (May not be taken for credit by students who have passed Art 451.)

## Art History 202 Oceanic Art

The arts of the tribal peoples of the Pacific. (May not be taken for credit by students who have passed Art 351.)

## Art History 204 Pre-Columbian and American Indian Art

The arts of the Indians of South, Central, and North America. (May not be taken for credit by students who have passed Art 457.)

## Art History 262 20th-Century Painting and Sculpture

Art in Europe and America from A.D. 1905 to the present. (May not be taken for credit by students who have passed Art 381.)

## Art History 300 Oriental Art

The stylistic development of the arts of India, China, and Japan, and their correspondence to the visual art forms of other Asiatic countries. (May not be taken for credit by students who have passed Art 400.)

## Art History 301 Japanese Art

The major aspects of Japanese architecture, sculpture, painting, and the decorative arts from the 5th to the 19th century A.D. (May not be taken for credit by students who have passed Art 425.)

## Art History 302 Buddhist Art

Buddhist visual imagery and iconography from Ashokan India, 3rd centry B.C., through Kamakura Japan, early 14th century A.D.

## Art History 310 Art of the Ancient Near East

The architecture, sculpture, and painting of Egypt, Mesopotamia, Iran, Asia Minor, and Syria from the Neolithic to the Roman Period. (May not be taken for credit by students who have passed Art 445.)

## Art History 312 Greek Art

The architecture, sculpture, and painting of the pre-Hellenic Aegean civilizations and Classical Greece from 1500 B.C. to 100 B.C. (May not be taken for credit by students who have passed Art 455.)

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## Art History 314 Roman Art

The architecture, sculpture, and painting of Etruria and Rome from 600 B.C. to A.D. 330. (May not be taken for credit by students who have passed Art 455.)

## Art History 320 Byzantine Art

Byzantine architecture, sculpture, and painting from the time of Justinian in Byzantium and Italy to A.D. 1500 in Russia and the Balkans. (May not be taken for credit by students who have passed Art 465.)

## Art History 322 Early Medieval Art in the West

The architecture, sculpture, and painting of medieval Europe from A.D. 300 to A.D. 1000. (May not be taken for credit by students who have passed Art 361 or 461.)

## Art History 324 Romanesque Art

The architecture, sculpture, and painting of western Europe from A.D. 1000 to A.D. 1200. (May not be taken for credit by students who have passed Art 361 or 461.)

## Art History 326 High Gothic Art

The architecture, sculpture, and painting of western Europe from A.D. 1150 to A.D. 1300. (May not be taken for credit by students who have passed Art 361 or 461.)

## Art History 326 International Gothic Art

The architecture, sculpture, and painting of the late Gothic style from A.D. 1300 to A.D. 1450. (May not be taken for credit by students who have passed Art 361 or 461.)

## Art History 330 Renaissance Art in Italy

Architecture, sculpture, and painting of Italy from A.D. 1400 to A.D. 1525. (May not be taken for credit by students who have passed Art 369.)

## Art History 332 16th-Century Renaissance Art

The art of the later Renaissance and Mannerism, especially in Italy, from A.D. 1525 to A.D. 1600.

## Art History 334 Renaissance Art in Northern Europe

The style and iconography of Flemish, Dutch, French, and German painting and related arts from A.D. 1400 until A.D. 1500. (May not be taken for credit by students who have passed Art 370.)

## Art History 340 17th-Century Art

The rise of the Baroque style of architecture, sculpture and painting in Italy and

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its development in France, Spain, and the Low Countries. (May not be taken for credit by students who have passed Art 373.)

## Art History 341 18th-Century Arł

The evolution and spread of the Baroque style throughout the western world and the emergence and diffusion of the Rococo. (May not be taken for credit by students who have passed Art 473.)

## Art History 350 American Art

The European tradition in the architecture, sculpture, and painting of the United States from A.D. 1630 to A.D. 1890. (May not be taken for credit by students who have passed Art 333.)

## Art History 352 English Art

The Renaissance tradition in the architecture, sculpture, and painting of England from A.D. 1530 to A.D. 1830. (May not be taken for credit by students who have passed Art 371.)

## Art History 354 German Art

Architecture, sculpture, and painting in Central Europe from Roman times to the present. (May not be taken for credit by students who have passed Art 341.)

## Art 360 19th-Century Art

Architecture, sculpture, and painting in Europe from A.D. 1789 to A.D. 1914. (May not be taken for credit by students who have passed Art 380.)

## Art History 362 Modern Architecture

Architecture in Europe and America from A.D. 1850 to the present. (May not be taken for credit by students who have passed Art 383.)

## Art History 364 Urban Design

A study of the attempts to organize and control the urban environment in the past, present, and future.

## Art History 400 Chinese Art

The history of Chinese artistic expression in painting, sculpture, ceramics, jade, and bronze from the Shang Dynasty, ca. 1550 B.C., until the advent of the Chinese Republic in A.D. 1912. (May not be taken for credit by students who have passed Art 435.)

## Art History 401 Japanese Painting

The major Japanese ink painters from the Zen Buddhist artists of the Kamakura period, A.D. 1185-1334, through the Kano school and Nanga painters of the Edo period, A.D. 1615-1868.

## Art History 403 Asian Ceramics

An intensive study of the ceramics of Persia, China, Japan and South East Asia. Research includes visits to museums and to local private collections.

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## Art History 420 Iconography in Christian Art

The literary and artistic origins and developments of the major themes in western Christian art, with emphasis on the medieval transformations of classical sources.

## Art History 421 Stained Glass

The techniques and styles of stained glass from antiquity through A.D. 1500, with concentration on medieval glass in France.

## Art History 450 The Architecture of Michigan

The domestic, public, and religious architecture of Michigan and the former Northwest Territories from A.D. 1701 to the present. Special prerequisite: Art History 350. (May not be taken for credit by students who have passed Art 431.)

## Art History 462 Architecłure Now

The architecture of the last five years with emphasis on the problems of dealing with architectural history as it is being made. Special prerequisite: Art History 362.

## Art History 480 Seminar in Art History

The history and criticism of art as disciplines from classical antiquity to the present, with emphasis on the main approaches to the study of art since A.D. 1500. Students will read selections from the major contributors to these disciplines. (May not be taken for credit by students who have passed Art 480.)

## Art 490 Special Problems in Art History

Specific assignments and research problems in various art historical problems. With permission of the Chairman of the Department of Art \& Art History, may be taken under different instructors in two different semesters for a total of 8 credits. Special prerequisite: Permission of Instructor. (May not be taken for credit by students who have passed Art 490.)

## Requirements for the Liberal Arts Major in Studio Art

Studio Art 100, 101, 200, 201, 300, 301, 400, and 401, a total of 32 credits, are required. In addition, a portfolio approved by faculty jury in the senior year is required for graduation.

Studio Art 305, 306, 405, and 406 are elective, interdisciplinary courses without specific prerequisites, save permission of the instructor, open to non-majors.

Required corequisites for the studio art major are Art History 100, Art History 262, and two 300-level art history courses, a total of 16 credits in art history.

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Majors who intend to apply to graduate school in studio art should consult with a member of the studio art faculty in the sophomore year.

## Studio Art Courses

Note: Course equivalents in this curriculum are based on credits rather than courses completed in the old curriculum except for Studio Art 100. These equivalents are as follows:

Art 226 equals Studio Art 100
4 credits equal prerequisite to Studio Art 101
8 credits equal prerequisite to Studio Art 200
12 credits equal prerequisite to Studio Art 201
16 credits equal prerequisite to Studio Art 300
20 credits equal prerequisite to Studio Art 301
24 credits equal prerequisite to Studio Art 400
28 credits equal prerequisite to Studio Art 401
All studio art courses are for one semester and carry four credits, and require six hours of student participation per week, 4.5 hours of instruction and 1.5 hours of criticism/laboratory. The following courses may, with permission of the instructor, be taken for eight credits in a given semester or, if taken for four credits, may be repeated in a later semester for four additional credits: Studio Art 200, $201,300,301$, and 400.

## Studio Art 100 Introduction to Studio Art, I

Introduction to visual concepts and their relationships to various media and expressive considerations. Prerequisite or corequisite: Art History 262. (May not be taken for credit by students who have completed Art 226.)

## Studio Art 101 Introduction to Studio Art, II

Continuation of Studio Art 100. Prerequisite: Studio Art 100. (May be taken for credit in 1972-1973 by students who have passed 4 credits of studio art.)

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## ARTS AND SCIENCES

## Studio Art 201 General Compositional Elements, II

Continuation of Studio Art 200. Prerequisite: Studio Art 200. (May be taken for credit in 1972-1973 by students who have passed 12 credits in studio art.)

## Studio Art 300 Specific Compositional Elements, I

Detailed exploration of specific elements of composition such as horizontals, modules, and environmental art. Emphasis and title listing will vary depending on the instructor. Prerequisite: Studio Art 201. (May be taken for credit in 1972-1973 by students who have passed 16 credits in studio art.)

## Studio Art 301 Specific Composition Elements, II

Continuation of Studio Art 300. Prerequisite: Studio Art 300. (May be taken for credit in 1972-1973 by students who have passed 20 credits in studio art.)

## Studio Art 305 Non-Traditional Media, I

Investigation of the use of specific contemporary media such as audio and video tape, computers, and other electronic devices. Open to non-majors. Prerequisite: Permission of Instructor.

Studio Art 306 Non-Traditional Media, II<br>Continuation of Studio Art 305. Open to non-majors. Prerequisite: Permission of Instructor.

## Studio Art 400 Specific Media, I

Independent exploration of one or two specific media. Portfolio will be judged at end of the semester. Prerequisite: Studio Art 301. (May be taken for credit in 1972-1973 by students who have passed 24 credits of studio art.)

## Studio Art 401 Specific Media, II

Continuation of Studio Art 400. Portfolio will be judged at the end of the semester. Prerequisite: Studio Art 400. (May be taken for credit in 1972-1973 by students who have completed 28 credits of studio art; must be taken by senior majors who have not passed Art 490.)

## Studio Art 405 Information, I

Investigation of various aspects of the visual arts such as historical movements and the relationships of the visual arts to other disciplines. Open to non-majors. Prerequisite: Permission of Instructor.

## Studio Art 406 Information, II

Continuation of Studio Art 405. Open to non-majors. Prerequisite: Permission of Instructor.

Requirements for the Secondary Teaching Minor in Art
Art History 101, Art History 262, Art History 350, and three additional courses in Art History or Studio Art are required, making a total of 24 credits. Consult the Dean of the School of Education for more detailed information.

A secondary teaching major in art is not offered.

## ARTS AND SCIENCES

## DEPARTMENT OF BIOLOGICAL SCIENCES



Assistant Professors: Madison B. Cole, Jr.
John D. Cowlishaw
Earl M. Ettienne
Esther M. Goudsmit
R. Douglas Hunter

Paul A. Ketchum
Arun K. Roy
Barry S. Winkler
Philip T. Clampitt
James R. Wells

The Department of Biological Sciences offers programs of study leading to the degree of Bachelor of Arts. These programs prepare the student for graduate studies in the life sciences, laboratory and research work in industries concerned with biological materials, professional careers in medicine, dentistry, and allied fields or science teaching in junior and senior high schools. This liberal arts program in biology is particularly well suited to the needs of the premedical student.

The Department of Biological Sciences offers a diversified selection of courses with its main strength being in Cell Biology, but also with courses and research programs in Biochemistry, Physiology, Morphology, Genetics, Botany, Ecology, Aquatic Biology, Invertebrate Zoology, Developmental Biology, and Microbiology. The student selects courses that suit his goals and interests and also has the opportunity to become involved in an undergraduate research program. Since modern biology requires physico-chemical insight, corequisite training in chemistry, physics and mathematics is required.

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Biology majors may complete their general education requirement through courses chosen from departmental offerings, from University courses, or in Allport College, Charter College, or New College, but it is important that they should consult in advance with a departmental adviser and the head of their chosen college in order to avoid class scheduling problems.

The secondary education biology teaching major, with group minor in chemistry and physics, is designed for the student wishing to teach in junior or senior high school. The required education courses are included in the program so that the graduate may be sponsored for certification.

## Requirements for the Liberal Arts Major in Biology

Forty credits in biology are required. This total must include eight lecture courses. (Corresponding lecture and laboratory courses should normally be taken simultaneously.) In addition, 15 credits in chemistry, 10 credits in physics, and 8 credits in mathematics (from the sequence MTH 134, 154-155, or MTH 121-122) are required. The Department also recommends competence in a foreign language.

## Requirements for the Secondary Teaching Major in Biology

Thirty-five credits in biology are required. Minors in chemistry or physics, or a group minor in chemistry and physics (as listed under requirements for the teaching minor in science p. 283 are recommended. Additional requirements include 8 credits in mathematics and the following education courses: ED 244, 245, ED 428, and ED 455.

## Requirements for the Secondary Teaching Minor in Biology

Twenty credits in biology are required. Courses used to satisfy this requirement must be numbered BIO 111 or above.

## Liberal Arts Major in Biology

(A Typical Program)

## Semester 1

BIO 111, 112
Chem ${ }^{1} 104$ or 114, 117
Distribution Requirement
Learning Skills or Math ${ }^{1}$

Semester 2
BIO 113, 114
Chem ${ }^{1} 105,107$ or 115,118
Distribution Requirement
Learning Skills or Math ${ }^{1}$

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Semester 3<br>BIO Lecture and Lab<br>Chem ${ }^{1}$ 203, 206 or 234, 217<br>Distribution Requirement<br>Math or elective

Semester 5
BIO Lecture and Lab
Distribution Requirement or Foreign Language ${ }^{3}$
Physics ${ }^{1} 101$ or 151
Distribution Requirement or elective

Semester 7
BIO Lecture and Lab
Distribution Requirement
Elective
Elective

Semester 4
BIO Lecture and Lab
Distribution Requirement
Math ${ }^{1}$ or elective
Chem ${ }^{2} 204,207$ or 235, 218 or elective

## Semester 6

BIO Lecture and Lab
Distribution Requirement or Foreign Language ${ }^{3}$
Physics 102 (or 152) and 158
Elective

## Semester 8 <br> BIO Lecture and Lab <br> Distribution Requirement <br> Elective <br> Elective

${ }^{1}$ The choice chemistry, math and physics courses should be made with care. Chem. 114, 115 should be chosen by students with strong interest and aptitude in chemistry, and who desire a particularly rigorous sequence. Chem. 104, 105 offers special emphasis on biochemical applications. Students planning on graduate work or professions requiring a strong mathematical training are urged to take Math 154-155 and Physics 151, 152. Students with insufficient background to enter Math 154-155 may take Math 134 which provides the background for Math 154. Math 121-122 will also satisfy departmental requirements. Placement examinations are given in Math and Chem. to entering freshmen to assist in course selection.
${ }^{2}$ Certain professional or graduate schools require a fourth semester of Chem.
${ }^{3}$ German, French or Russian is recommended but not required.

## Secondary Teaching Major in Biology <br> With a Group Minor in Chemistry and Physics

## (A Typical Program)

Semester 1
BIO 111, 112
Chem ${ }^{1} 104$ or 114, 117
Distribution Requirement
Learning Skills or Math ${ }^{1}$

## Semester 3

BIO Lecture and Lab
Chem ${ }^{1} 203,206$ or 234, 217
ED 244
Math ${ }^{1}$ (or elective)

Semester 2
BIO 113, 114
Chem ${ }^{1} 105,107$ or 115,118
Distribution Requirement
Learning Skills or Math ${ }^{1}$
Semester 4
BIO Lecture and Lab
Distribution Requirement or elective
ED 245
Math ${ }^{1}$ (or elective)

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Semester 5<br>BIO Lecture and Lab<br>Distribution Requirement or Foreign Language ${ }^{3}$<br>Physics ${ }^{1} 101$ or 151<br>Field Group Requirement or elective

## Semester 7

BIO Lecture and Lab
Distribution Requirement
Elective
Elective

Semester 6
BIO Lecture and Lab
Distribution Requirement or Foreign Language ${ }^{3}$
Physics ${ }^{1} 102$ (or 152) and 158
Elective

## Semester 8

ED 428
ED 455
Elective
Elective
${ }^{1}$ The choice of chemistry, math and physics courses should be made with care. Chem. 114, 115 should be chosen by students with strong interest and aptitude in chemistry, and who desire a particularly rigorous sequence. Chem. 104, 105 offers special emphasis on biochemical applications. Students planning on graduate work or professions requiring a strong mathematical training are urged to take Math $154-155$ and Physics 151, 152. Students with insufficient background to enter Math 154-155 may take Math 134 which provides the background for Math 154. Math 121-122 will also satisfy departmental requirements. Placement examinations are given in Math and Chem. to entering freshmen to assist in course selection. ${ }^{2}$ Certain professional or graduate schools require a fourth semester of Chem. ${ }^{3}$ German, French or Russian is recommended but not required.

The following courses are open to all students and are ordinarily not counted toward the biology major or minor requirements. (They may be used to satisfy a natural science Field Group Distribution by nonscience majors).

## BIO 104 Biology of the Human

(4 credits)
The biology of man. Cells, tissues, organs, conduction, contraction, circulation of blood and lymph, breathing, will be discussed. Offered in the Fall Semester.

## BIO 105 Biology of the Human <br> (4 credits)

Digestion, excretion, the endocrine system and reproduction will be discussed. Offered in the Winter Semester.
Prerequisite: BIO 104 or permission of the Instructor.

## BIO 106 Local Flora

(4 credits)
A study of the plant life native to Michigan with emphasis upon flowering plants. The following topics will be considered: woody plants in winter; life cycle of seed plants, e.g., lily and pine; preparation and use of biological keys to higher plants; recognition of a few families of native vascular plants; fern life history and indentification; plant communities in Michigan.

## BIO 108 Bio-engineering <br> (4 credits)

Selected topics to introduce students of engineering to biological systems. Control and communication, mechanics of locomotion, rheology of circulation, excretion, respiration, systems approach to biomedical problems will be discussed. Usually taught in the Winter Semester.

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The following courses are designed particularly for the biology major and minor and for other majors in the sciences.

## BIO 111 Biology (4 credits)

The structure and function of living matter, its organization into cells, tissues, and organs of both animal and plant forms. The physical and chemical basis of movement, nutrition, reproduction, development, inheritance, and evolution. The principles governing animal and plant populations, species, higher taxonomic groups, and biota. Basic principles will be emphasized. Offered in the Fall Semester.
BIO 112 Biology Laboratory (1 credit) To accompany BIO 111.

BIO 113 Biology
(4 credits)
Continuation of BIO 111. Offered in the Winter Semester.
BIO 114 Biology Laboratory
(1 credit)
To accompany BIO 113.

## BIO 121 Infroductory Microbiology

(4 credits)
A survey course emphasizing the relationship between microorganisms and man. The topics covered will include microbiol structure and function; nutrition, growth and genetic systems in microorganisms; host-parasite relationships; basic principals of immunology; antimicrobial agents; microorganisms and the environment. Classification of bacteria, algae, slime molds and protozoa. No prerequisites.
BIO 221 Physiology (4 credits)
A detailed study of general physiological principles. Primary emphasis will be focused on the following topics: characterization of the internal environment; bio-energetics; transport of material across the cell membrane; osmoregulation; respiration; conduction; contraction; circulation. Offered in the Fall Semester.
Prerequisite: BIO 113.
BIO 222 Anatomy and Physiology Laboratory (1 credit) A detailed study of vertebrate anatomy and physiology. To accompany BIO 221.
BIO 223 Histology
(4 credits)
The microscopic anatomy and histochemistry of vertebrate tissues and organs, in relation to tissue function. Offered in the Fall Semester.
Prerequisite: BIO 113.

## BIO 224 Histology Laboratory

To accompany BIO 223.

## BIO 225 Elementary Biophysics and Cellular Biochemistry

(4 credits)

The principles and techniques of molecular biology which are basic to discussions in the intermediate and advanced courses. Topics covered include: structure and function of macromolecules, cellular organization, biological energy, molecular genetics, and related techniques. Offered in the Fall Semester.
Prerequisite: BIO 113.
BIO 226 Elementary Biophysics and Cellular
(1 credit)
Biochemistry Laboratory
Io accompany BIO 225.

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## BIO 237 Bofany

(4 credits)
A course in plant biology including topics on gross and microscopic structure, physiological processes, reproduction, and development. Diversity within the plant kingdom and evolutionary history are also discussed.
Prerequisite: BIO 113.
BIO 238 Botany Laboratory (1 credit) To accompany BIO 237.
BIO 241 Planł Morphology (4 credits)
Structure, reproductive mechanisms, and evolutionary relationships of the plant groups. Ultrastructure of cells and their walls. Preparation of plant materials for microscopic examination. Cytochemistry and histogenesis of selected specimens. Prerequisite: BIO 113.
BIO 242 Plant Morphology Laboratory
(1 credit) To accompany BIO 241.

## BIO 243 Plant Physiology

(4 credits)
Mineral nutrition, absorption and translocation, metabolism, hormonal control, dormancy, growth and reproduction, and physiological responses to the environment. Prerequisite: BIO 241.

BIO 244 Plant Physiology Laboratory
(1 credit) To accompany BIO 243.

BIO 247 Invertebrate Zoology
(4 credits)
Comparative study of major invertebrate groups, with particular reference to their evolution.
Prerequisite: BIO 113.
BIO 248 Invertebraite Zoology Laboratory (1 credit) To accompany BIO 247.
BIO 249 Endocrinology (4 credits)
An integrated study of the vertebrate endocrine systems with emphasis on their inferrelationship, control, and mechanism of action. Offered in the Winter Semester. Prerequisite: BIO 225 or 221.

BIO 250 Endocrinology Laboratory
(1 credit)
To accompany BIO 249. Individual research projects. Offered in the Winter Semester. Prerequisite: Permission of the Instructor.

## BIO 301 Ecology

(4 credits)
Basic principles of environmental biology, illustrated through field study and having applications to Man.

BIO 302 Ecology Laboratory (1 credit) To accompany BIO 301.
BIO 309 Parasitology (4 credits)
A survey of parasitic relationships: taxonomy and anatomy of involved organisms, life cycles, nutrition, pathology, immunology, and preventive methods. Opportunity for individual projects.

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## BIO 310 Parasitology Laboratory

Observation and description of type specimens, post mortem of selected animals, histological techniques in slide preparation.

## BIO 323 Developmental Biology

(4 credits)
The principles of embryology and related topics. A consideration of events in the progressive development of the egg into the adult organism. The physiological aspects of morphogenesis, differentiation, growth and regeneration will be included. Offered in the Winter Semester.
Prerequisites: BIO 113, 114.
Corequisite: BIO 324.
BIO 324 Developmental Biology Laboratory
(1 credit)
To accompany BIO 323. A study of the anatomy of developing vertebrate animals. Individual and group research projects in experimental morphogenesis. Offered in the Winter Semester.
Corequisite: BIO 323.

## BIO 331 Microbiology

(4 credits)
A discussion of the classification, morphology and physiology of microorganisms. Prerequisite: BIO 113, and one year of chemistry.

## BIO 332 Microbiology Laboratory

( 2 credits)
To accompany BIO 231.

## BIO 341 Genetics

(4 credits)
The physical and chemical basis of inheritance. Selected topics in human genetics, microbial genetics, biochemical genetics, and cytogenetics.
Prerequisite: BIO 113.

| BIO 342 | Genetics Laboratory (1 credit) |
| :--- | :--- | :--- |
| To accompany BIO 341 . |  |

## BIO 343 Aquatic Biology

(4 credits)
A general study of energy flow and biomass production up the trophic series, including energy transfer and limiting factors at each level. The finite nature of aquatic resources and their exploitation in relation to the future protein requirements of man will be explained and examined.
Prequisites: BIO 111, 112, 113, 114

## BIO 344 Aquatic Biology Laboratory

(1 credit)
To accompany BIO 343.
BIO 350 Physiology of the Central Nervous System (2 credits) A course on the functional organization and integrative operation of the central nervous system. Topics include neuronal activity, synaptic transmission, regional network properties, organization of cerebral function, sensation (including special senses) and control of motor activity.
Prerequisite: Introductory Biology course or equivalent.

## BIO 403 Profozoology

(4 credits)
Recognition, morphology, reproduction, and physiology of the more important taxonomic groups of the Protozoa.

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BIO 405 Special Topics
(2, 3, or 4 credits)
Prerequisite: Permission of the Instructor.

## BIO 407 Cellular Biochemistry <br> (4 credits)

An advanced level discussion of the cellular function in the perspective of the recent developments in molecular biology. The topics to be covered include macromolecular chemistry, enzymology, metabolic interrelationships, subcellular organelles, protein and nucleic acid biosynthesis and cellular control mechanisms. Offered in the Fall Semester. Prerequisites: BIO 225, CHM 204, PHY 102.

BIO 408 Cellular Biochemistry Laboratory
(1 credit)
To accompany BIO 407. An introduction to modern research techniques in biochemistry. The laboratory work will include: different chromatographic techniques (paper, column, thin layer, etc.), electrophoresis and immunoelectrophoresis, enzyme chemistry (purification and kinetic analysis), ultracentrifugation and cell fractionation, isolation and density gradient analysis of the nucleic acids. Offered in the Fall Semester.

## BIO 409 Cellular Biochemistry <br> (4 credits)

Continuation of BIO 407.
BIO 410 Cellular Biochemistry Laboratory
(1 credit)
To accompany BIO 409.
BIO 415 Differentiation
(4 credits)
A consideration of the theories relating to the control of differentiation and development.
Prerequisite: BIO 323.
BIO 425 Biophysics
(4 credifs)
BIO 426 Biophysics Laboratory
To accompany BIO 425.

## BIO 429 Cyłochemistry

(4 credits)
A survey of techniques currently used in microscopy to analyze the distribution and quantity of specific chemicals within cells and their organelles. Techniques included are: specific staining reactions, enzyme digestion, metabolic inhibition, and autoradiography. Offered in the Fall Semester.
Prerequisites: BIO 223, 224, and permission of the Instructor.
BIO 430 Cytochemistry Laboratory
(1 credit)
To accompany BIO 429. Individual research projects employing cyłochemical techniques to study and compare the chemical compositions of several types of cells.

BIO 435 Biochemical and Biophysical Genetics (4 credits)
An integrated discussion of the concepts of biochemical genetics derived from microbial systems, and their application to the problems of development in multicellular organisms.
Prerequisite: BIO 341.
BIO $436 \quad \begin{aligned} & \text { Biochemical and Biophysical } \\ & \text { Genetics Laboratory }\end{aligned}$
(1 credit)

To accompany BIO 435.

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## BIO 437 Virology

(4 credits)
Molecular biology of viruses, predominantly bacterial. Offered in the Winter Semester. Prerequisite: BIO 225, 231, or 341.

BIO 438 Virology Laboratory (1 credit) To accompany BIO 437.

BIO 441 Microbial Genetics
(4 credits)
A discusion of the genetics of microbial systems, including molds, bacteria, Protozea, and viruses.
Prerequisites: BIO 231 and BIO 341.
BIO 442 Microbial Genetics Laboratory (1 credit)
To accompany BIO 441.
BIO 445 Ulitrastructure
(4 credits)
A consideration of the fine structure of cells and cell products as revealed by electron microscopy and other procedures.
Prerequisite: BIO 223.
BIO 446 Ulirastrucłure Laboratory
(1 credit)
To accompany BIO 445.
BIO 455 Seminar (4 credits)
Discussion of recent publications in the biological sciences.
BIO 463 Cell Biology
(4 credits)
Prerequisites: BIO 223 and permission of the instructor.
BIO 464 Cell Biology Laboratory
(1 credit)
To accompany BIO 463.
BIO 471 Advanced Physiology-Nerve
(4 credits)
Review and analysis of the modern concepts of membrane excitation phenomena of nerve and synapse. Electrophysiological phenomena discussed mostly at cellular and molecular levels. Offered in the Fall Semester in alternate years.
Prerequisites: BIO 221 and permission of the Instructor.
BIO 472 Advanced Physiology Laboratory
(1 credit)
To accompany BIO 471. An introduction to research techniques in electrophysiology. Work will include: use of oscilloscope, amplifiers, and stimulator; extracellular potential recording technique; microelectrode technique. Offered in the Fall Semester in alternate years.

BIO 473 Advanced Physiology-Muscle (4 credits) Review and analysis of the modern concepts of muscular activity and molecular mechanism of contraction. The discussions will include the ultrastructural correlation of muscle function and mechanics, biochemical approaches to elucidate energetics of muscle contraction, theories of molecular basis of muscular contraction. Offered in the Fall Semester in alternate years.
Prerequisites: BIO 221 and permission of the Instructor.

## BIO 474 Advanced Physiology Laboratory

(1 credit)
To accompany BIO 473. An introduction to research techniques in muscle physiology. Work will include: neuromuscular transmission study; isometric force measurements;

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isotonic lever design problems; length-fension, force-velocity relations; stress-strain relations of series elastic component; contractile properties of isolated actomyosin system and glycerinated muscle fiber. Offered in the Fall Semester in alternate years.
BIO 490 Individual Laboratory Work (2, 3, or 4 credits) Prerequisite: Permission of the Instructor.

## BIO 497 Apprentice College Teaching

An elective course open to any well-qualified upperclassman who wins consent of a faculty member in his major field to assist in presenting a regular college course, usually a laboratory course, to underclassmen. Open to teaching or liberal arts majors with the support of the Department. Does not satisfy departmental major requirements.

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DEPARTMENT OF CHEMISTRY

| Professors: | Paul Tomboulian, Chairman <br> Gottfried Brieger <br> Kenneth M. Harmon <br> Lewis N. Pino |
| :--- | :--- |
| Associate Professors: | James E. Davis <br> Julien Gendell <br> Steven R. Miller <br>  <br>  <br> Frederick W. Obear <br>  <br>  <br> Joel W. Russell <br> Robert L. Stern <br> Robert C. Taylor <br> Assistant Professors: <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br> Parbury P. Schmidt <br> Michael D. Sevilla <br> Donald C. Young |

The Oakland University chemistry programs offer students the laboratories, equipment, and research opportunities typically found in larger universities while retaining the strong emphasis on undergraduate education and informality of student-faculty relations characteristic of smaller liberal arts colleges. The Department offers both highly professional and interdisciplinary chemistry programs while retaining the liberal arts dedication to developing the highest intellectual and creative potential of its students. Oakland University and the Department of Chemistry are accredited by the American Chemical Society. The Department of Chemistry offers programs of study leading to the degrees of Bachelor of Arts, Bachelor of Science, and Master of Science. For details of the graduate programs, see the Graduate Bulletin.

The Department is pleased to offer credit through the Advanced Placement Program. (See p. 18.) Entering students interested in this option should consult with a departmental adviser well in advance of their first registration.

## Requirements for the Major in Chemistry

This program is highly structured and provides excellent professional preparation in chemistry, physics, and mathematics either for graduate study or for industrial work. Well-prepared students who regularly attend the Spring Sessions (April-mid June) may also obtain the degree of Master of Science in chemistry in four calendar years.

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Forty-eight credits in chemistry are required. Of these at least 32 credits must be taken in lecture courses including CHM 235, 312, and 345 and at least 13 credits in laboratory courses including CHM 218, 317, and 348. (CHM 444 and 351 are highly recommended electives.) Twenty-six credits in mathematics and physics are required, including MTH 254, PHY 158, and PHY 371. Admission to major standing requires a total of 32 credits in chemistry, physics, and mathematics.

## American Chemical Society Certification Program

Students who complete the above major including CHM 324, 328 and who complete in addition GRM 101-102 or RUS 114-115 meet the minimum standards for professional education of the American Chemical Society and will be so certified by the Department. (Language proficiency equivalent to the above is highly desirable for all students planning to enter graduate schools in chemistry.)

## Requirements for the Liberal Arts Major in Chemistry

This curriculum is a flexible program with a minimum of specific requirements and a maximum of free electives; it is designed for those students who prefer to plan much of their own programs. This curriculum might well be selected by a student with a strong interest in biochemistry, chemical physics, and environmental studies; or in scientific-business careers such as patent law and chemical sales; or by premedical students.

Thirty-four credits in chemistry are required, including CHM 204 or CHM 235 and CHM 305 or CHM 344. Of this total, at least 7 credits must be in laboratory courses in chemistry, including CHM 308 or 317 or 328 or 348. MTH 155, PHY 152, and PHY 158 are required. (PHY 371 is a highly recommended elective and a prerequisite to CHM 312 and 345.) Admission to major standing requires a total of 28 credits in chemistry, physics, and mathematics.

## Requirements for the Secondary Teaching Major in Chemistry

Thirty credits in chemistry are required, including CHM 204 or 234, and CHM 205 or 344. Of this total, 6 credits in laboratory courses in chemistry are required. Eight credits in mathematics are required, including MTH 155. A biology-physics group minor consisting of at least 12 credits in each discipline is strongly recommended. Other minors are available under certain conditions; consult the chairman of the Department of Chemistry for details.

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The following education courses are required: ED 244, 245, 428, and 455. ENV 151 and 181 are strongly recommended electives. Admission to major standing requires a total of 28 credits in chemistry, biology, physics, and mathematics.

## B.A. and B.S. Degrees in Chemistry

Students completing the requirements for the major in chemistry may receive either the B.A. degree or B.S. degree at their option. Students completing the requirements for the liberal arts major or the secondary teaching major in chemistry receive the B.A. degree.

Requirements for the Secondary Teaching Minor in Chemistry
Twenty credits in chemistry courses are required.

## Major in Chemistry

(A Typical Program)

Semester 1
CHM 114 or 124, 117
MTH 154
Learning Skills or
Distribution Requirement

Semester 3
CHM 234, 217
MTH 254
PHY 152, 158
Distribution Requirement
Semester 5
CHM 344
CHM 317
(CHM 351, 357) ${ }^{1}$
Distribution Requirement
Semester 7
CHM 312
(CHM 444, 448) ${ }^{1}$
Elective

Semester 2
CHM 115 or 125, 118
MTH 155
PHY 151
Learning Skills or
Distribution Requirement

## Semester 4

CHM 235, 218
PHY 371
(MTH 255) ${ }^{1}$
Distribution Requirement

## Semester 6

CHM 345, 348
(CHM 324, 328) ${ }^{1}$

## Elective

Distribution Requirement

## Semester 8

CHM Elective
Distribution Requirement or
Elective
Elective
${ }^{1}$ Courses in parentheses are not required but are recommended electives.

## Liberal Arts Major in Chemistry

(A Typical Program for a Premedical Student with a Chemistry Major)

## Semester 1

CHM 104 or 114, 117
MTH 134 or 154
Learning Skills or
Distribution Requirement

## Semester 3

CHM 203, 206 or 234, 217
MTH 155 or 254
PHY 151
Distribution Requirement
Semester 5
CHM 305 or 344
BIO 111, 112
PHY 371
Semester 7
(CHM Elective) ${ }^{1}$
BIO Elective
Elective

Semester 2
CHM 105, 107 or 115,118
MTH 154 or 155
Learning Skills or
Distribution Requirement

## Semester 4

CHM 204, 207 or 235, 218
MTH 254 or Elective
PHY 152, 158
Distribution Requirement

## Semester 6

CHM Elective ${ }^{1}$
BIO 113, 114
Elective

## Semester 8

(CHM Elective) ${ }^{1}$
Distribution Requirement
Elective
${ }^{1}$ CHM $312,324,328,345,351$, and 371 are recommended electives.

## Secondary Teaching Major in Chemistry

 with a Group Minor in Biology and Physics(A Typical Program)

## Semester 1

CHM 104
MTH 134 or 154
Learning Skills or
Distribution Requirement

## Semester 3

CHM 203, 206
PHY 151
MTH 155 or Elective
ED 244

## Semester 2

CHM 105, 107
MTH 154 or 155
UC 054
Learning Skills or Distribution Requirement

## Semester 4

CHM 204, 207
PHY 152, 158
ED 245
Elective

## ARTS AND SCIENCES

Semester 5<br>CHM Elective<br>BIO 111, 112<br>Distribution Requirement

Semester 7
BIO Elective
PHY Elective

Semester 6
CHM Elective BIO 113, 114
Distribution Requirement or Elective

Semester 8
ED 428
ED 455

There are three introductory chemistry courses: CHM 104, 114, and 124. CHM 104 is the first course of a five-semester sequence including CHM 105, 203, 204, and 305 intended primarily for chemistry students in the liberal arts program, premedical students, secondary science teachers, and biology majors. CHM 114 and 124 are intended for chemistry students in the chemistry major program and for engineering, physics, and mathematics students. CHM 124 is designed for the student with a strong high school science and mathematics background.

## CHM 104 Introductory Chemistry

(4 credits)
Introduction to atomic and molecular structure, chemical bonding, and stoichiometry. Offered in the Fall Semester.
Prerequisite: Two years of high school mathematics.

## CHM 105 Infroductory Chemistry

(4 credits)
Chemical equilibria, solution chemistry, and reaction mechanisms. Prerequisite: CHM 104.

## CHM 107 Infroductory Chemistry Laboratory

(1 credit)
Experiments which illustrate fundamental chemical principles and introduce modern laboratory techniques; methods of analysis and physical properties of compounds. Prerequisite: CHM 104.

## CHM 114 Chemistry <br> (4 credits)

An introduction to the study of gases, liquids, solids, atomic and molecular structure, stoichiometry, equilibria, thermodynamics, and kinetics. Offered in the Fall Semester. Prerequisite: Two years of high school mathematics. Some knowledge of high school chemistry is assumed. Concurrent registration in MTH or MTH 134 is recommended.

## CHM 115 Chemistry

(4 credits)
Chemical equilibrium: ionic, heterogeneous, oxidation-reduction, pressure, temperature, and concentration effects; rates and mechanisms of chemical reactions; an introduction to biochemistry, organic, inorganic, and nuclear chemistry. Offered in the Winter Semester.
Prerequisite: CHM 114 or 124.
Prerequisite or corequisite: MTH 154.

## CHM 117 Chemistry Laboratory

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## CHM 118 Chemistry Laborafory

(1 credit)
Experiments illustrating principles and techniques of analytical chemistry. Offered in the Winter Semester.
Prerequisite: CHM 117.

## CHM 124 Chemistry <br> (4 credits)

An introduction to the study of gases, liquids, and solids; atomic and molecular structure; thermodynamics and kinetics. Offered in the Fall Semester.
Prerequisite: One year of high school chemistry and three years of high school mathematics.
Corequisite: MTH 154.

## CHM 125 Chemistry

(4 credits)
Chemical equilibrium: ionic, heterogeneuos, oxidation-reduction, pressure, temperature, and concentration effects; rates and mechanisms of chemical reactions; an infroduction to biochemistry, organic, inorganic, and nuclear chemistry. Offered in the Winter Semester.
Prerequisite: CHM 124.
Corequisite: MTH 155.

## CHM 191 Compułer Techniques

(2 credits)
Introduction to computer programming and numerical methods used in chemistry: Fortran, curve fitting, roots of equations, numerical integration.
Prerequisite: One year of college chemistry or two years of high school chemistry.

## CHM 203 Introductory Organic Chemistry (4 credits)

Rates of chemical reactions; basic organic chemistry; synthetic polymers; biopolymers. Offered in the Fall Semester.
Prerequisite: CHM 105 or 115.

## CHM 204 Intermediate Organic Chemistry

Treatment of organic reactions and nomenclature: stereochemistry, mechanisms, synthesis, and structure proof. Special emphasis will be placed on topics that are biologically significant. Offered in the Winter Semester.
Prerequisite: CHM 203.
CHM 206 Introductory Organic Chemistry (1 credit) Laboratory
Fundamental tehcniques of oragnic chemistry.
Prerequisite or corequisite: CHM 203, Prerequisite: CHM 107 or 117.

## CHM 207 Intermediate Organic Chemistry Laboratory <br> (1 credit)

Synthetic, degradative, and analytical techniques of organic chemistry with emphasis on natural products.
Prerequisite: CHM 206.
Corequisite: CHM 204.
CHM 217 Introductory Analytical Laboratory (2 credits) Instrumental analysis with applications to analytical chemistry and emphasis on basic features and use of instruments. Includes lectures on instrumental and analytical techniques closely integrated to elucidate experimental laboratory work.
Prerequisite: CH 118.

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## CHM 218 Introductory Synthetic Laboratory (2 credits)

Preparation of organic and inorganic compounds with emphasis on laboratory techniques and skills. Methods of purification, separation, and handling of materials. Simple applications of instrumental methods (IR, UV, NMR, and GC) and computer file searching to identification of compounds.
Prerequisite: CHM 217, CHM 234.

## CHM 234-235 Organic Chemistry

(4 credits each)
Functional groups, reaction mechanisms, stereochemistry, rearrangements, polymers, and natural products. Offered as a Fall-Winter sequence.
Prerequisites: CHM or 105.

## CHM 261 Radiochemistry

Nuclear structure and stability, nuclear reactions, decay schemes, dosimetry, radioisotope production, tracer applications, radioisotope methodology; includes laboratory. Prerequisite: CHM 206 or 118.

## CHM 305 Introductory Physical Chemistry

(4 credits)
An introduction to the systematic treatment of thermodynamics, kinetics, and transport theory. Applications will be drawn from biochemical sources where appropriate. Prerequisites: PHY 101, MTH 121 or 134, CHM 105 or 115.
Prerequisite or Corequisite: MTH 122 or 154.

## CHM 308 Introductory Physical Chemistry Laboratory

Experiments which illustrate the determination of physical properties of compounds with emphasis on biological systems: thermochemistry, equilibrium, electrochemistry, kinetics, surface phenomena, macromolecules, electric and magnetic properties.
Prerequisite or corequisite: CHM 305.

## CHM 312 Inorganic Chemistry

(4 credits)
Discussion of representative inorganic compounds including salts, covalent and ionic molecules, and transition metal compounds with emphasis on structure, bonding, kinetics, and mechanisms.
Prerequisite: CHM 305.

## CHM 317 Inorganic Chemistry Laboratory

(1 credit)
Advanced preparatory techniques; methods of purification and analysis. Prerequisite or corequisite: CHM 312.

## CHM 324 Analytical Chemistry

( 2 credits)
Advanced quantitative techniques and measurements; theory and application of modern analytical methods.
Prerequisites or corequisites: CHM 237 or 207; CHM 344 or 205; PHY 152.
Corequisite: CHM 328.
CHM 328 Analytical Chemistry Laboratory
(2 credits)
Laboratory coordinated with CHM 324.
Corequisite: CHM 328.
CHM 344 Physical Chemistry
Physical chemistry of macroscopic systems: thermodynamics, kinetics, transport properties.
Prerequisites: CHM 203 or 115, MTH 155, PHY 152.

## CHM 345 Physical Chemistry

(4 credits)
Physical chemisţry of microscopic systems: elementary quantum chemist̂ry, bonding theories, introductory sfatistical mechanics.
Prerequisites: CHM 205 or 344, MTH 254, PHY 371.

## CHM 348 Physical Chemistry Laboraiory <br> (2 credifs)

 Prerequisites: CHM 344, PHY 158.
## CHM 351 Biochemistry

(4 credits)
An introduction to molecular biology and the chemistry of biological macromolecules; proteins and nucleic acids, enzymology, bio-energetics, and metabolic cycles.
Prerequisite: CHM 235 or 204.
CHM 357 Biochemistry Laboratory
(1 credit)
Prerequisite or corequisite: CHM 351.

## CHM 371 Environmenfal Chemistry <br> (3 credits)

A detailed treatment of a variety of chemical topics and problems in the current environment. The basis for phenomena of eutrophication, combustion chemistry, modes of pesticide action, chemical ecological relationships are typical topics considered. Prerequisites: CHM 203 or 234; CHM 305 or 344; some knowledge of biochemistry desirable.

CHM 400 Seminar
(1 credit)
Weekly discussions of all fields of current interest in chemistry. (This course may be taken twice for credit.)

CHM 405 Selecied Topics (2, 4 or 6 credits)
Advanced study in special areas; seminars, laboratory work, and readings. Prerequisite: Permission of the Department.

CHM 413 Advanced Inorganic Chemistry (4 credits)
A study of the families of elements and classes of compounds from the standpoint of molecular structure and the rates and equilibria involved in chemical reactions. Prerequisite: CHM 312.

## CHM 422 Advanced Analytical Chemistry

Detailed treatment of the theory and applications of modern analytical methods. Prerequisite: CHM 324.

## CHM 426 Instrumentation

(3 credits)
Analysis of design and operation of instrumental equipment; includes laboratory. Prerequisites: CHM 238, 328, 348; PHY 158.

## CHM 434 Advanced Organic Chemistry <br> (4 credits)

Discussion of the various aspects of modern synthetic methods, stereochemistry, and reaction mechanisms; selected special topics.
Prerequisite: CHM 204 or 235.
CHM 444 Advanced Physical Chemistry
Application of quantum mechanics and statistical mechanics to chemical kinetics, molecular structure, and molecular spectroscopy. Prerequisite: CHM 345.

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## CHM 448 Spectroscopy Laboratory

Experimental techniques of spectroscopy: infrared, ultraviolet, nuclear magnetic resonance, electron spin resonance, mass spectroscopy.
Prerequisite or corequisite: CHM 444.

## CHM 452 Advanced Biochemistry <br> (4 credits)

Topics in intermediary metabolism, cellular regulation, and molecular genetics. Prerequisite: CHM 351 or BIO 407.

CHM 487 Advanced Preparations (2 or 4 credits)
Specialized laboratory work in selected areas emphasizing advanced techniques.
Prerequisite: Permission of the instructor is required prior to registration.
CHM 490 (1, 2, 4, 6, or 8 credits)
Laboratory and library practice in undergraduate research.
Prerequisite: Permission of the Department is required prior to registration.

## CHM 497 : Apprentice College Teaching (2 or 4 credits)

Supervised participation in the teaching of selected undergraduate courses, usually laboratories. Open to upperclass majors. May not be used to satisfy major requirements (Graded S/N).
Prerequisite: Permission of the department.
Chemistry courses on the 500 level are graduate level courses available to well-prepared undergraduate students with permission of the Department. These courses may be offered as reading courses on a tutorial basis or as small lecture courses.

## CHM 512,513 Topics in Inorganic Chemistry (4 credits each)

Advanced treatment of selected topics of inorganic chemistry.
Prerequisite: CHM 413 or equivalent.
CHM 523, 524 Topics in Analytical Chemistry (4 credits each) Advanced treatment of selected topics of current analytical chemistry such as separation methods, instrumentation, electrochemistry.
Prerequisite: CHM 422 or equivalent.
CHM 531, 532, 533 Topics in Organic Chemistry (4 credits each) Advanced treatment of selected special topics: natural products, organometallics, reaction mechanisms, synthesis.
Prerequisite: CHM 434 or equivalent.
CHM 543, 544 Topics in Physical Chemistry (4 credits each) Special topics in physical chemistry such as quantum mechanics, statistical mechanics and thermodynamics, kinetics, group theory.
Prerequisite: CHM 444 or equivalent.
CHM 552,553 Topics in Biochemistry (4 credits each)
Advanced treatment of selected topics in biochemistry. This course is usually conducted as tutorial with topics chosen according to the interests and backgrounds of the students.
Prerequisite: CHM 452 or equivalent.

# DEPARTMENT OF CLASSICAL LANGUAGES AND LITERATURES 

Associate Professor: Stephen C. Shucard, Chairman<br>Assistant Professors: Peter J. Binkert<br>Susan A. Stephens<br>Cherryl A. Wagner

Once, to play the role of educated man successfully it was necessary to study and imitate the Greek and Latin "classical" models of literature and philosophy and the great historical figures of antiquity. This educational theory repressed the study of the natural sciences, logic, political science, and grammar, and students of these fields gradually asserted their independence of the classics and defined new purposes for science and education. In the study of literature and history more and more attention was paid to modern and comparative studies, although the classical epoch will always remain an important segment of these disciplines. Even the study of character, conceptual systems ("mythologies" or "cosmologies"), and the motives for human behavior, always the main purpose of the humanities as a liberal education for lawyers, politicians, administrators, officers, and teachers, is now being taken over by more scientific approaches in psychology, sociology, anthropology, and communication science. Yet, we must still study our great men and writers through their acceptance and rejection of their traditions, including the Greco-Roman, Judaic, and early Christian traditions. A sense of this past is still prereqvisite for those who wish today to reject or maintain traditional concepts and systems or to create new mythologies and new directions.

Hence the Department is dedicated to the constant re-examination of heroic models, conceptual systems, and concepts such as individual liberty, democracy, justice, ambition, duty, sin, which were originally defined within classical mythologies and are of contemporary concern. It offers all students the opportunity to examine them both in the total context of the conflicting mythologies from which they were created and in their intellectual history in Western civilization and modern America. We also study the literature, history, art, and languages of the ancient world for their intrinsic interest and value.

For those who wish to read the material in the original language the Department offers elementary language courses in Greek and

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Latin, designed to provide after one year an understanding of the structure of each language, and after two years an adequate reading knowledge. Students who have studied either language previously may test out of some or all of this two-year program.

Students majoring in the Department study the works of antiquity in the original languages, usually in small tutorials based on the content of a classics course (history, literature, mythology, philosophy). They may be planning to go on to graduate school in one of these fields, in classical studies, or in a professional field (such as law or politics) which requires an understanding of man's behavior in the light of his traditions and influences. Others are preparing to be Latin or humanities teachers and to help keep alive the classical past and its relevance to modern problems. In each case students should consult carefully on what courses outside the major are most appropriate to their purposes.

The Department of Classical Languages and Literatures offers programs of study leading to the degree of Bachelor of Arts with liberal arts major in classical languages, liberal arts major in Latin, and secondary teaching major in Latin. The requirements of all three of these programs are compatible with the general education requirements of the College of Arts and Sciences and of the Allport College, the Charter College, and the New College programs.

## Requirements for the Liberal Arts Major in Classical Languages

Thirty-six credits are required, to be chosen from the departmental offerings in Latin (in courses beyond LTN 215), in Greek, and in classics or ancient history. A typical classics major would include: 12 credits in Latin; 12-16 credits in Greek (GRK 114-115, GRK 214-215); 8-12 credits in classics (CLS 312, 339, 340, etc.). This major is usually taken together with a concentration in a discipline such as ancient history, conceptual history, linguistics, or literature. Those planning graduate work should plan their program with their departmental adviser so that their degree includes at least 20 credits in Greek and 20 credits in their concentration. Admission to major standing requires successful completion of the English proficiency requirement and the completion of LTN 215 (either by course work or by proficiency examination).

## Requirements for the Liberal Arts Major in Latin

As for the major in classical languages except that the 36 required credits are made up without any courses in Greek.

## Requirements for the Secondary Teaching Major in Latin

Thirty-two credits in Latin and classics or ancient history are required, including 20 credits in Latin (in courses beyond LTN 215) and 12 credits in classics. The following education courses are required: ED 244, ED 245, ED 428, ED 455; a minor concentration in language arts or in (ancient) history is strongly advised. Admission to major standing requires successful completion of the English proficiency requirement, the completion of LTN 215 (either by course work or by proficiency examination), acceptance by the Department, and concurrent acceptance into the Teacher Education Program.

## Programs for Concentration:

History Major with a Concentration in Classics:
Three (3) courses to be selected from courses in Greek, Roman, or Jewish history. May include CLS 130-131; HST 230-231.

Three (3) courses to be selected from other history or classics courses.

Four (4) courses in Greek or Latin (114/115; 214/215, or the equivalent).

## Classics Major with a Concentration in Linguistics

Five courses ( 20 credits) in linguistics, and five courses (20 credits) in classics.

The courses in linguistics should include LIN 301, LIN 302, LIN 403, LIN 404, and one elective.

The courses in classics should include two courses in the Latin language beyond Latin 215, two courses in the Greek language (Greek 114 and Greek 115 or beyond), and one elective.

## Recommended Course Elections for Specific Majors:

## Classical Languages

Learning Skills or Elective Learning Skills or Elective
Latin 214
Greek 114 (or Distribution Req.)
Distribution Requirement

Latin 215
Greek 115 (or Distribution Req.)
Distribution Requirement
GreekSee Classical Languages
Latin
See Classical Languages
Courses Open to Freshmen
Classical Languages and LiterafureClassics
$\qquad$ CLS 101, 203, 205
Latin* ..... LTN 114, 214, 320
Greek* ..... GRK 114
CLS 101 Human Nature and the ..... (4 credits)

## Properties of Mind

A cross-disciplinary investigation into the nature of man and of mind, and a discussion of the capacities and potentialities of human beings. Topics to be covered include the acquisition of knowledge, the dynamics of change, and the evolution of culture. Special emphasis will be placed on the crucial roles of language and of ancient civilization.
Prerequisites: None. Open to freshmen and sophomores only.
CLS 130/131 (HST 230/231)
(4 credits)

## The Dynamics of Ancient Civilization

A comparative examination of the major ancient societies in the light of the origins, characteristics and development of political institutions, the methods of integration of the individual in society, and the responses of the various societies to contact with, and incorporation of, foreign groups and ideas.
CLS 130/HST 230 Egypt, Mesopotamia, Israel, Greece.
CLS 131/HST 231 Rome and the Mediterranean.
Course to be offered 1973-74.
CLS 203 Survey of Greek Literature (4 credits)
Survey of the major writers of Greece. All works in translation. Recommended for freshmen and sophomores.

Classics 203/Philosophy 204 will be offered in conjunction with the Philosophy Department as one 8 credit course in the Fall of 1972. This course, which will be limited to 30 students, will be an integrated study of the literature, history, art and philosophy of Classical Greece. The emphasis will be on studying and understanding the inter-relations between these various kinds of human activity and the importance of their manifestations in Classical Greece for us. In addition to lectures and discussions the course will involve films, play readings, guest lecturers and museum trips. There are no prerequisites except that permission of the instructor is required for freshmen.

## CLS 204 Classical Greek Philosophy

(4 credits) Identical with PHL 204.

## CLS 205 Survey of Roman Literature

(4 credits)
Survey of the major writers of Rome. All works in translation. Recommended for freshmen and sophomores.

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## ARTS AND SCIENCES

## CLS 211 An Introduction to Old Testament Literature

(4 credits)

A study of the types of literature found in the Old Testament. Identical with ENG 211. Prerequisites: Sophomore standing or permission of the instructor.

## CLS 312 Classical Mythology

(4 credits)
The principal Greek and Roman myths and their uses in classical and post-classical art and literature. Offered each Winter Semester. Identical with ENG 312. Nofe: Oakland University students concentrating in English may count this course toward their major.

## CLS 317 The Classical Tradition

(4 credits)
A study of the classical influence on Western culture. While some attention is given to the visual arts, the main emphasis is on the classical traditions in Western literature.

## CLS 324 The Ancient Historians (4 credits)

The aims, methods, achievements, and limitations of ancient historiography sfudied through a reading of the most prominent ancient historians in translation. Identical with HST 324. Offered in alternate years.

## CLS 337 Hellenic Greece

(4 credits)
Greek history from the Bronze Age through the Peloponnesian War. Identical with HST 337. Offered in alternafe years.

## CLS 339 Republican Rome

(4 credits)
Roman history from the regal period to the end of the Republic. Identical with HST 339. Offered in alternate years.

## CLS 340 Imperial Rome

(4 credits)
Roman history from the principate of Augustus to the fall of the western empire. Identical with HST 340. Offered in alternate years.

## CLS 355 Greek and Roman Art

(4 credits)
The course is directed toward an historical and critical interpretation of pre-Classical and Classical styles of architecture, sculpture, and painting from the Minoan age through the Roman Imperial epoch. Identical with ART 455.
Prerequisite: AH 100 or AH 101.
CLS 382 Ancient and Medieval Philosophers (4 credits)
An intensive study of the works of one major philosopher of the ancient or the medieval period. The specific philosopher to be considered will vary from year to year. May be repeated for credit. Offered every year. Identical with PHL 382.
Prerequisite: PHL 101. Recommended: PHL 204 or 205, depending on the philosopher studied.

## CLS 396 The Ancient Near East: The World of the Bible

(4 credits)

The historical, geographic, sociological, and intellectual environment reflected in the Bible, beginning with ancient Mesopotamian and Egyptian civilization and concluding with the Hellenistic period. Identical with HST 396. Offered at irregular intervals.

## CLS 397 History of the Second <br> Jewish Commonwealth

(4 credits)

The historical events from the return from Babylon to the end of the Second Commonwealth (538 B.C. to 70 A.D.), including a consideration of the Great Assembly, the

## ARTS AND SCIENCES

emergence of the synagogue, the Sanhedrin and Jewish sects, the origins of Christianity, and Greek-Roman-Jewish relations. Idenfical with HST 397. Offered at irregular intervals.

## GRK 114-115 Elementary Greek

(4 credits each)
Forms and grammatical structures of classical Greek, together with simple connected reading.

## GRK 214-215 Infermediate Greek <br> (4 credits each)

Review of grammar, training in translation from and into Greek, and the reading of simple literary works, including selections from Plato, Euripides, and Homer.
Prerequisite: GRK 115 or an equivalent proficiency.

## GRK 320 Selections from Greek Literałure

(4 credits)
A reading course, offered every semester as a futorial in association with the classics courses offered in that semester. May be taken for one or more semesters. Prerequisite: GRK 215 or an equivalent proficiency.

## GRK 480 Advanced Greek

(4 credits)
Tutorial study of individual authors, selected themes, or problems associated with the subject matter of a classics course. Students must be concurrently in a classics course above 310 or have the permission of the instructor. May be taken for one or more semesters. Offered every semester.
Prerequisite: GRK 320 (4 or more credits).

## GRK 490 Independent Study: Greek

(4 credifs)
Individual reading and research for advanced classics majors. Taught by arrangement. Prerequisite: Consent of the instructor.

## LTN 114-115 Elementary Latin

(4 credits each)
Forms and grammatical structures of classical Latin, together with simple connected reading. Designed for students with no prior knowledge of Latin.

## LTN 214-215 Intermediate Latin <br> (4 credits each)

Review of grammar, training in translation from and into Latin, and the reading of simple literary works, including selections from Vergil and medieval or renaissance Latin.
Prerequisite: LTN 115 or an equivalent proficiency.

## LTN 320 Selections from Latin Literature

(4 credits)
A reading course, offered every semester as a tutorial in association with the classics courses offered in that semester. May be taken for one or more semesters. Prerequisite: LTN 215 or an equivalent proficiency.

## LTN 480 Advanced Latin

Tutorial study of individual authors, selected themes, or problems associated with the subject matter of a classics course. Students must be concurrently in a classics course above 310 or have the permission of the instructor. May be taken for one or more semesters. Offered every semester.
Prerequisite: LTN 320 (4 or more credits).
LTN 490 Independent Study: Latin

## DEPARTMENT OF ECONOMICS

| Professors: | Robbin R. Hough (on leave 1972-73) <br> Sid Mittra (on leave 1972-73) <br> Norton C. Seeber |
| :--- | :--- |
| Associate Professors: | Eleftherios N. Botsas, Chairman <br> (on leave Winter 1973) <br> Karl D. Gregory |
| Assistant Professors: | David P. Doane <br> John Hurd II (on leave 1972-73) <br> Lon Polk <br> John E. Tower <br> Kenneth C. Young <br> William R. Cron |
| Instructors: | Alice C. Gorlin |
| Adjunct Faculty: | Theodore O. Yntema |

The curriculum for the liberal arts major in economics emphasizes concepts and tools of analysis and their application to problems of economic and social policies. By learning ways of thinking in economics, students gain insight into how to approach economic questions in various applied areas. Students are prepared for careers in industry and government or for graduate study in economics, law, management, or business administration.

The liberal arts program in economics leads to the degree of Bachelor of Arts and is offered in the College of Arts and Sciences under the direction of the faculty in economics of the School of Economics and Management. Students taking liberal arts majors, including the economics major, must satisfy the appropriate degree requirements in the College of Arts and Sciences as described in this catalog. Economics majors may satisfy the University's general education requirements for graduation either by participating in the College of Arts and Science's General Education Program (see pp. 90-98 of this catalog) or by participating in the program of one of the inner colleges-Allport College, Charter College, or New College. When choosing an inner-college program, students should consult their advisers to insure that all requirements for graduation are met.

## ARTS AND SCIENCES

## MATHEMATICS AND SOCIAL SCIENCE COGNATE COURSES

To obtain a background in mathematics and another social science discipline, the student is required to take the following:CreditsMTH 121-122 Introductory Mathematics for the Life andSocial Sciences or MTH 154-155 (Calculus)8Social Science The student must take 2 courses for whichhe qualifies from one of the followingsocial sciences: Political Science, Psychol-ogy, Sociology, Anthropology, and SpeechCommunication (except SCN 310)8
TOTAL ..... 16

Students who expect to go on to graduate school should obtain as strong a foundation as possible in mathematics and the social sciences. Toward this goal, it is suggested that such students take the MTH 154-155 (Calculus) sequence and consider taking advanced courses in mathematics. Those seriously interested in going on to graduate work are urged to consult an adviser early concerning their programs.

The two mathematics courses in the economics program fulfill, as Symbolic Systems courses, two of the eight distribution courses required in the College of Arts and Science's general education program.

## ECONOMICS CORE PROGRAM

The required economics courses are:
Credits
ECN 100-101 Introduction to Economics I and II 8
ECN 210
ECN 211
ECN 216
ECN 217
ECN $418 / E C N$ Statistical Methods for the Social Sciences4
Laboratory for ECN 210 ..... 1
Microeconomic Analysis ..... 4
Macroeconomic Analysis ..... 4
Selected Topics in Economics Policy/or Seminar ..... 4
TOTAL IN ECONOMICS CORE PROGRAM ..... 25

## ECONOMICS ELECTIVES

The student completes his work in economics by electing at least

## ARTS AND SCIENCES

3 additional courses ( 12 credits) in economics. Two of the electives must require either ECN 216 or ECN 217 as a prerequisite.

## ELECTIVES

To complete the required total of 124 credits necessary for graduation, the student may elect any courses in the University for which he/she is eligible to enroll.

Modifications to the Economics program may be sought by petitioning the chairman of the Department of Economics. If the requested changes to the above program are significant, the chairman may ask the student to work toward a Bachelor of Arts with an independent concentration. (See pp. 107-109 of this catalog.)

Admission to major standing in economics requires: (a) certification of English proficiency; (b) completion of ECN 100-101, ECN 216; ECN 217, MTH 121-122 (or equivalent) (c) completion of 56 credits or more; and (d) at least a 2.0 cumulative grade point average overall and in major courses.

## Liberal Arts Major in Economics

(A Typical Program)

## Semester 1

Learning Skills/Elective
MTH 121 (or MTH 154)
ECN 100
Distribution Requirement
Semester 3
ECN 216
ECN 210 and 211
(or MGT 210 and 211)
Distribution Requirement
Elective

## Semester 5

Economics Elective
Social Science Requirement
Distribution Requirement
Elective

## Semester 7

Economics Elective
Elective
Elective
Elective

Semester 2
Learning Skills/Elective
MTH 122 (or MTH 155)
ECN 101
Distribution Requirement
Semester 4
ECN 217
Distribution Requirement
Social Science
Requirement
Elective
Semester 6
Economics Elective
Distribution Requirement
Elective
Elective

## Semester 8

ECN 480
Elective
Elective

## ARTS AND SCIENCES

## Basic Courses

The following courses are part of the basic program of the economics major and will be offered each year. Under special circumstances, the prerequisites and corequisites for a course may be waived.

## ECN 100 Introduction to Economics I <br> (4 credits)

An introduction to the tools and analysis of economics in four modules: a) introduction to the methodology and tools of economic analysis; b) elementary analysis of the market system (microeconomics); c) elementary analysis of the determination of national income, employment, and the price level (macroeconomics); and d) the application of economic analysis to poverty, urban problems, international trade, environmental degradation, or other specific areas.

## ECN 101 Infroduction to Economics II

(4 credits)
A continuation of ECN 100 with four more modules: a) the instruments used in economic policy and their control by economic institutions, i.e., accounting for the firm and GNP accounting; b) statistics; c) computers and computer programming; and d) a project of the student's choice.

## ECN 169 Introduction to the Political Economy of Capitalism <br> (4 credits)

An introduction to the economic analysis of the capitalist economy using the tools and perspectives of both the traditional and radical economists. Topics include: (a) micro-economics-the development of the market system, monopoly, discrimination, pollution, and poverty; (b) macroeconomics-control of the level of economic activity, unemployment, inflation, defense spending, growth and under-development, and imperialism; and (c) alternative economic systems.
This course is not open to majors in economics or management.
ECN 210 Statistical Methods for the Social Sciences (4 credits) Statistical techniques useful in business and economic analysis. Emphasis on statistical inference, including hypothesis testing, estimation, and regression techniques. Ordinarily offered in the Fall Semester.
Prerequisites: MTH 122 or equivalent.
Corequisite: ECN 211.

## ECN 211 Laboratory for ECN 210

Use of computers in statistics.
ECN 216 Microeconomic Analysis
(4 credits)
Intermediate analysis of pricing, resource allocation, and income distribution at the level of the individual firm, industry, and household consuming unit. Ordinarily offered in the Fall and Winter Semesters.
Prerequisites: ECN 101 or equivalent.
Prerequisites or corequisites: MTH 122 or equivalent.

## ECN 217 Macroeconomic Analysis

The construction, analysis, and interpretation of models of aggregate economic behavior, including the policy implications of alternative models. Ordinarily offered in the Fall and Winter Semesters.
Prerequisites: ECN 101 or equivalent.
Prerequisites or corequisites: MTH 121 or equivalent.

## ARTS AND SCIENCES

## Economics Electives

Economics electives provide an opportunity for the student to gain greater proficiency in the use of analytical tools, in the application of these tools to specialized problems, and in the investigation of current issues. Following is a list of economics electives which have been offered by members of the faculty in the past three years. Students should use this list as a guide to what has been offered and what could be offered. If some students desire to take a given course on the list or a course in addition to those on the list, they should petition the Department or a faculty member in an attempt to have the course offered. Any new course offering, change in the description of a course, or any change in the prerequisites for a course will be announced in a supplementary bulletin published during the advising period for a given semester. Under special circumstances, the prerequisites and corequisites for a course may be waived.

## ECN 223 The Indian Economy <br> (4 credits)

The economic problems of developing nations in the context of the Indian economy. Prerequisite: Permission of the Instructor.

ECN 225 American Economic History
(4 credits)
Models and case studies of principal events in the growth and development of the American economy from colonial times to the present. Emphasizes the evolution of current historical thought under the impact of economic analysis. Prerequisites: ECN 101 or equivalent.

## ECN 300 Systems Analysis

(4 credits)
Emphasizes the identification of goals and the use of resources for achieving goals through the application of analytical and quantitative tools developed in earlier courses to problems drawn from a variety of experiences, e.g., financial management, marketing, production, capital budgeting, efc. The course is designed to develop students' skills in the use of tools, to facilitate the transferability of these skills, and to enhance their ability to develop new skills as required by a given sifuation. Identical with MGT 300. Ordinarily offered in the Fall Semester.
Prerequisites: ECN 216 or equivalent.
ECN 303 Economic Growth, Fluctuations, and
(4 credits)
Analysis of the forces underlying economic growth in advanced nations. Study of business conditions and various factors affecting business fluctuations. Infroduction to economic forecasting techniques for the individual firm and for the national economy. Identical with MGT 303. Ordinarily offered in the Fall Semester.
Prerequisites: ECN 101 or equivalent.
ECN 308 Urban-Regional Economics
(4 credits)
Application of the tools of economic analysis to the problems of the determination of the level, distribution, growth, and stability of income within and among urban regions. Study of the impact of these processes on spatial organization, transportation, industrial location, and the provision of public services.
Prerequisites: ECN 100 or equivalent.

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## ECN 309 Metropolis: Problems and Policies (4 credits)

A survey of the economics of urban problems in the United States. Includes the analysis of urban poverty, land use, transportation, and environmental quality; discussion of the economics of political fragmentation and the nature of national urban policy; review of the state of the art in urban planning. Selected problems of the Detroit area economy are examined.
Prerequisites: ECN 100 or equivalent.
ECN 321 Monetary Theory and Policy
(4 credits)
Analysis of modern monetary and banking theories. The course investigates both domestic and international monetary analysis and policies, and the relationship between monetary and fiscal policies as they affect the economy.
Prerequisites: ECN 101 or equivalent.
ECN 322 Capital Markets
(4 credits)
Analysis of the operation of major financial institutions and markets. The sources and uses of funds for corporations and other organizations. Identical with MGT 322. Prerequisites: ECN 216 or equivalent.
ECN 323 International Trade and Finance
(4 credits)
The theory of international specialization and exchange, commercial policy, national income and balance of payments, monetary relations, foreign investment, and current issues of international economic policy.
Prerequisites: ECN 216 or equivalent.
ECN 324 Business in the American Economy (4 credits) Public attitudes toward, and government regulation of, business; social and legal responsibilities of business. Identical with MGT 324.
Prerequisites: ECN 216 or equivalent.

## ECN 325 Industrial Organization

(4 credits)
Resource patterns, production processes (including technology and economies of scale), and managerial organization as related to the size of firms and the location of industries. Identical with MGT 325.
Prerequisites: ECN 216 or equivalent.

## ECN 326 Economic Development

(4 credits)
Application of the tools of economic analysis to the problems of economic development and growth.
Prerequisites: ECN 100 or equivalent.

## ECN 333 Labor-Management Relations

(4 credits)
Analysis of management-employee relations in modern industry; public policy in labor-management areas. Identical with MGT 333.
Prerequisites: ECN 216 or equivalent.
ECN 336 Economics of the Public Sector
(4 credits)
A study of the role and impact of the public sector in a market economy. Includes expenditure defermination, revenue source analysis, and discussion of current problems. Prerequisites: ECN 100 or equivalent.

## ECN 342 Simulation in Economics

An infroduction to the use of simulation techniques in economic analysis.
Prerequisites: Major standing and permission of the Instructor.

## ARTS AND SCIENCES

ECN 350 Economic Structures and Systems ( 4 credits)
A comparative analysis of the principles, structures, and ideologies of capitalism, socialism, and the command economy, with special emphasis on the processes of economic decision-making.
Prerequisites: ECN 216 or equivalent.
ECN 405 Econometrics
(4 credits)
An introduction to the testing of economic models, expressed mathematically, by statistical methods.
Prerequisites: ECN 210, ECN 216, ECN 217 (or equivalent courses), and permission of the Instructor.

## ECN 417 Advanced Economic Theory

(4 credits)
This course covers selected topics in the economic theory of resource allocation, economic growth, and stability.
Prerequisites: ECN 216 and ECN 217, or equivalent.
ECN 418 Selected Topics in Economic Policy (4 credits) Prerequisite: Major standing.

## ECN 442 Operations Research

(4 credits)
Operations research techniques are used in exploring problems selected from several areas of organizational and business analysis. Identical with MGT 442.
Prerequisites: ECN 216 or equivalent.
ECN 460 Independent Group Study (4 credits)
Students in this course determine which current economic issues are of interest to them and prepare a program for pursuing these issues in depth. The course consists primarily of student participation, but students may draw upon the faculty for consultation and direction. Although independent research is an integral part of the course, the major emphasis is on class discussion and analysis. Identical with MGT 460. Prerequisite: Major standing.

## ECN 480 Seminar <br> (4 credits)

Theses, individual topics, and readings. Ordinarily offered in the Winter Semester. Prerequisite: Major standing.

ECN 490 Independent Research (2 or 4 credits)
Offered every semester.
Prerequisite: Permission of the Instructor.

## ARTS AND SCIENCES

## DEPARTMENT OF ENGLISH

$\left.\begin{array}{ll}\text { Professors: } & \begin{array}{l}\text { John P. Cutts, Chairman } \\ \text { Maurice F. Brown }\end{array} \\ & \text { Joseph W. DeMent } \\ & \text { Peter G. Evarts (English and Learning Skills) } \\ \text { Thomas Fitzsimmons }\end{array}\right]$

## ARTS AND SCIENCES

The Department of English offers undergraduate programs of study leading to the degree of Bachelor of Arts with liberal arts major, secondary teaching major, major with concentration in linguistics, and secondary teaching minor. The Department of English offers graduate programs of study leading to the degrees of Master of Arts in English and Master of Arts in Teaching of English. The latter program is jointly sponsored by the Department of English and the School of Education. For further information on the graduate programs, see the Graduate Bulletin.

Students electing majors in the Department of English may complete their general education requirement through courses chosen from departmental offerings from University courses, or in Allport College, Charter College, or New College. Their choice should be made in consultation with their advisers.

The Department is prepared to entertain petitions for advanced placement from students presenting evidence of satisfactory completion of courses in high school, through the Advanced Placement Program of the College Entrance Examination Board.

## The Liberal Arts Major in English

A major in English requires ten courses ( 40 credits). The only required course in the major is English 140, which should be taken in either semester of the freshman year. Transfer students should consult the Department to determine if their previous coursework elsewhere in English satisfies this requirement. A total of 4 credits toward the major or minor may be drawn from a course in the literature of a foreign or classical language.

The Department recommends ENG 241 and 242 to all majors and minors. Their primary emphasis is the reading of representative masterpieces. The Department hopes that, after completing either ENG 241 or 242, students will continue their reading of the major figures. If not, the Department feels they will have gained more than a superficial acquaintance with the art and times of the figures represented.

We also suggest that students take:
a course in American literature;
a course in Shakespeare;
a course in the study of language, preferably ENG 377;
a course in the study of poetry.

## ARTS AND SCIENCES

## Secondary Teaching Major in English

The major in teacher education stresses a pragmatic base of training for the prospective English teacher by moving both backward and forward-backward by prescribing core literature courses to insure a sound background and a range of approaches appropriate for the study of literature in the secondary school, and forward by including study in disciplines associated with the study of literature and the teaching of English.
I. The graduation requirement: 124 hours
II. Distribution:

| Major | 40 hours |
| :--- | ---: |
| Cognate | 8 hours |
| Minor | 20 hours |
| Education | 16 hours |
| Distribution | 32 hours |
| Elective | 8 hours |

124 hours
III. The Major:

Required:
English 140
English 241
English 242
English 224/225
English 210
English 376/377 or appropriate course in Linguistics
English 498
Elective:
Three courses at 300-level or above.
IV. Cognates:

One course in the teaching of reading at the secondary level.

One course in speech-communication.
One additional course in either Speech, Reading, Linguistics, or English composition.

## Recommendations for Students

 Contemplating Graduate SchoolWhile there are any number of undergraduate programs that will prepare the student planning on graduate work in English, a

## ARTS AND SCIENCES

few guidelines may help. Two years of work in a foreign language are valuable, since practically all M.A. programs require reading proficiency examinations; the more background one has as an undergraduate, the less trouble one will have preparing for the typical reading test. A second foreign language is valuable for those with intentions for a Ph.D. because practically all institutions granting the doctorate in English require demonstration of proficiency in two languages. Those most relevant to work in English are French, German, Italian, and Latin.

## Recommendations for the Secondary Teaching Minor

ENG 140 and four other courses drawn from the list of recommendations for the secondary teaching major, making a total of 20 credits: see recommendations for the secondary teaching major.

## The English Major with a Concentration in Linguistics

A modified English major with a concentration in linguistics is available for interested students. For details see the Department of Linguistics, p. 179.

## Special Note to Non-Majors and Elementary Education Students

Non-majors and elementary education students with major or minor concentrations in language arts should select from the following courses: ENG 100, 105, 111, 200, 201, 202, 207, 208, 209, 224, 225, 241, 242, 285. Students in these categories should not elect ENG 140, since it is an intensive course designed specifically as preparation for advanced courses in the major.

## ENG 100 World Literałure. <br> (4 credits)

Studies in major achievements from the world's literary heritage.

## ENG 105 Shakespeare

(4 credits)
A general introduction to representative dramatic works of Shakespeare. The course is designed for students seeking an English elective or a course to satisfy the Distribution Requirement in Lefters. Open to all students without prerequisite.

ENG 111 Modern Literature
(4 credits)
A general introduction to some phase of modern literature, the specific content to vary at the discretion of the instructor. (Sample offerings might be Modern Drama, Modern American Fiction, Continental Literature, etc.) The course is designed for students seeking an English elective or a course to satisfy the Distribution Requirement in Lefters. Open to all students without prerequisite.

## ARTS AND SCIENCES

## ENG 140 Introduction to Literary Studies (4 credits)

Intensive practice in the techniques of reading literature and introduction to important basic concepts of criticism and commentary. Reserved for English majors and minors as their first departmental course.
Prerequisite: Intention to major or minor in English.
ENG 200 Topics in Literature and Language (4 credits) Topics or problems selected by the instructor.
ENG 201 Poetry
(4 credits)
Infroduction to the analysis and enjoyment of poetry.
ENG 202 Epic
(4 credits)
Introduction to the analysis and enjoyment of the epic.

## ENG 207 Drama

(4 credits)
Introduction to the analysis and enjoyment of drama.

## ENG 208 Biography

(4 credits)
Introduction to the analysis and enjoyment of biography.
ENG 209 The Novel
(4 credits)
Introduction to the analysis and enjoyment of the novel.
ENG 210 Fundamentals of Exposition
(4 credits)
A systematic approach to writing designed to enhance the student's own writing skills and also his ability to teach writing.

ENG 211 An Introduction to Old Testament (4 credits) Literature
A study of the types of literature found in the Old Testament. Identical with CLS 211.
ENG 224 American Writers: The Nineteenth (4 credits) Century
A study of a small number of major works which constitute the core of the American literary tradition, including such authors as Hawthorne, Melville, and Mark Twain.
ENG 225 American Writers: The Twentieth (4 credits) Century
A study of a limited number of major works in several genres, by such writers as Baldwin, Dreiser, Faulkner and Stevens.
ENG 241 Chaucer, Shakespeare, Milton: (4 credits) Selected Works
Close examination of major works by these three authors.
ENG 242 English Augustan and Romantic Works (4 credits) A close examination of major texts of eighteenth and early nineteenth century English literature.

ENG 285 Inłerdisciplinary Issues
(4 credits)
The relationship of literature and literary study to a second discipline: science, philosophy, psychology, religion or the visual arts. The second area will vary from semester to semester.
Prerequisites: ENG 140 or permission of the Instructor.

## ARTS AND SCIENCES

## ENG 290 Introduction to Critical Methods <br> (4 credits)

A general introduction to the principal critical methods that have been used to analyze literature, together with the assumptions which underlie those methods.
Prerequisites: ENG 140 or permission of the Instructor.
ENG 300 Special Topics in Literature and (4 credits) Language
Special problems or topics selected by the instructor.
Prerequisites: ENG 140 or permission of the Instructor.

## ENG 301 Studies in Literary Kinds

(4 credits)
The study of a single literary kind, whether genre (such as novel, lyric, or drama) or mode (such as tragedy or comedy) in an attempt to discover similarities and differences among individual works studied as well as to relate the kind under discussion to the body of literature as a whole.
Prerequisites: ENG 140 or permission of the Instructor.

## ENG 307 Modern Drama

(4 credits)
Studies in English, American, and Continental drama since Ibsen. Prerequisites: ENG 140 or permission of the Instructor.

## ENG 310 Persuasive Writing

(4 credits)
A practical course in writing. Modes of persuasion, argumentation, arrangement of materials and matters of style.
Prerequisites: ENG 140 or permission of the Instructor.

## ENG 311 Chaucer

(4 credits)
The major works, with emphasis on The Canferbury Tales and Troilus and Criseyde. Prerequisites: ENG 140 or permission of the Instructor.

## ENG 312 Classical Mythology

(4 credits)
The principal Greek and Roman myths and their uses in classical and post-classical art and literature. Offered each Winter Semester. Identical with CLS 312.

## ENG 313 Myth in Literature

(4 credits)
Study of the mythic content and/or structure of literature.
Prerequisites: ENG 140 or permission of the Instructor.

## ENG 315 Shakespeare

(4 credits)
Reading and discussion of a representative selection of the plays and poetry. Prerequisites: ENG 140 or permission of the Instructor.

## ENG 317 Early American Literature

Studies in American literature before 1820. The course may concentrate on a type or movement within the period, at the discretion of the instructor. Prerequisites: ENG 140 or permission of the Instructor.

## ENG 320 Development of American Poetry <br> (4 credits)

An introduction to American poetry, with emphasis on the seventeenth to the nineteenth centuries.
Prerequisites: ENG 140 or permission of the Instructor.
ENG 322 Nineteenth Cenfury American Fiction (4 credits)
Selected readings in representative writers of the period. Prerequisites: ENG 140 or permission of Instructor.

## ARTS AND SCIENCES

## ENG 324 American Romanticism

(4 credits)
A study of the various manifestations of the romantic movement in America with readings drawn primarily from the poetry, essays, and fiction of the pre-Civil War period.
Prerequisites: ENG 140 or permission of the Instructor.

## ENG 326 The Gilded Age

(4 credits)
Readings in American fiction and poetry of the period between the Civil War and World War I.
Prerequisites: ENG 140 or permission of the Instructor.
ENG 332 Modern American Fiction
(4 credits)
Readings in American fiction from Henry James to the present.
Prerequisites: ENG 140 or permission of the Instructor.
ENG 333 Modern American Poetry
Studies in the poetry of the first half of the twentieth century. Prerequisites: ENG 140 or permission of the Instructor.

ENG 340 American Writing Now
(4 credits)
Contemporary American poetry, drama, and fiction.
Prerequisites: ENG 140 or permission of the Instructor.
ENG 341 A Survey of American-Jewish Literature (4 credits) Reading and critical analysis of representative selections from twentieth century Ameri-can-Jewish literature.
Prerequisites: ENG 140 or permission of the Instructor.

## ENG 342 Black American Writers

A study of black literary figures and of the black man in literature.
Prerequisite: ENG 140 or permission of the instructor.

## ENG 353 Old English Literature

A study of the literature of England from the beginning to the Norman Conquest. Primary focus on the Old English lyric and epic.
Prerequisites: ENG 140 or permission of the Instructor.

## ENG 354 Medieval Literałure

(4 credits)
Studies in English literature from the Norman Conquest to 1500, excluding Chaucer. Ballad, drama, romance, lyrics. Representative authors include the Pearl Poet, Langland, Scottish Chaucerians, Lydgate, and Malory. The course may concentrate on literature to 1350 or from 1350 to the Renaissance, at the discretion of the instructor. Prerequisites: ENG 140 or permission of the Instructor.

## ENG 355 Literature of the English Renaissance (4 credits)

Selected poetry and prose, non-dramatic; the Renaissance (roughly 1550-1660) as a historical and cultural phenomenon.
Prerequisites: ENG 140 or permission of the Instructor.

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## ARTS AND SCIENCES

ENG 360 Seventeenth Century English Poetry
(4 credits)
A study of seventeenth century poetry with particular emphasis on the schools of Jonson and Donne.
Prerequisites: ENG 140 or permission of the Instructor.
ENG 366 Restoration and Eighteenth Century (4 credits) Drama
Study of Restoration comedy, tragedy, and the heroic play and/or the sentimental drama of the eighteenth century.
Prerequisites: ENG 140 or permission of the Instructor.

## ENG 367 English Literature of the Restoration (4 credits) and Early Eighteenth Century

Studies in the prose and poetry of this period with emphasis on the writings of Dryden, Swift, and Pope.
Prerequisites: ENG 140 or permission of the Instructor.

## ENG 368 Eighteenth Century English Literature: (4 credits) The Age of Johnson

Prose and poetry of the second half of the eighteenth century with emphasis on Dr. Johnson and his circle and the development of the novel.
Prerequisites: ENG 140 or permission of the Instructor.
ENG 369 The English Novel
(4 credits)
A study of representative English novels.
Prerequisites: ENG 140 or permission of the Instructor.
ENG 370 The Romantic Period (4 credits)
Literature of the Romantic period with emphasis on major poets such as Wordsworth, Coleridge, Keats.
Prerequisites: ENG 140 or permission of the Instructor.
ENG 371 Victorian Literature
(4 credits)
Selected writers of the middle and late nineteenth century. Emphasis may be on fiction, poetry, prose or the drama at the discretion of the instructor.
Prerequisites: ENG 140 or permission of the Instructor.
ENG 375 Modern Literature
Modern British, American, and/or Continental literature, with concentration on the work of a small number of writers.
Prerequisites: ENG 140 or permission of the Instructor.
ENG 376 History of the English Language (4 credits)
A detailed survey of the English language from its beginning to modern times. Prerequisites: ENG 140 or permission of the Instructor.

## ENG 377 Modern English Grammar

(4 credits)
A survey of English structure, especially of syntax, with descriptions based on the work of important contemporary scholars.
Prerequisites: ENG 140 or permission of the Instructor.
ENG 382 Old English
(4 credits)
An introduction to the language of the Anglo-Saxons (c. 900 A.D.) in order to develop an ability to read Old English literature; acquaintance with the material is demonstrated by student recitation.
Prerequisites: ENG 140 or permission of the Instructor.

## ARTS AND SCIENCES

ENG 390, 391 Literary Criticism
(4 credits each)
The study and history of criticism.
Prerequisites: ENG 140 or permission of the Instructor.
ENG 400 Advanced Topics in Literature and (4 credits) Language
Advanced topics and problems selected by the instructor.
Prerequisites: ENG 140 or permission of the Instructor.
ENG 410 Imaginative Writing (4 credits)
Designed to provide potential writers of fiction, poetry and/or drama with an opportunity to develop technical proficiency and to receive criticism of work in progress. The course may focus on one kind of writing, and the approach may shift from semester to semester at the pleasure of the instructor.
Prerequisites: ENG 140 or permission of the Instructor.
ENG 430 Henry James
(4 credits)
The novels, shorter fiction, and literary criticism of Henry James, with attention to biographical and critical approaches.
Prerequisites: ENG 140 or permission of the Instructor.
ENG 439 Faulkner
(4 credits)
An intensive study of the fiction of William Faulkner, including aftention to various critical approaches.
Prerequisites: ENG 140 or permission of the Instructor.
ENG 451 Major American Writers
Studies in one or two American writers to be selected by the instructor. Prerequisites: ENG 140 or permission of the Instructor.

## ENG 452 Major British Writers.

Studies in one or two British writers to be selected by the instructor. Prerequisites: ENG 140 or permission of the Instructor.
ENG 465 Shakespeare
(4 credits)
Intensive analysis of four or five of the plays.
Prerequisites: ENG 140 or permission of the Instructor.
ENG 466 Milton
(4 credits)
Selected early poems, including "On the Morning of Christ's Nativity," "Comus," "Lycidas"; some of the sonnets and prose treatises; Paradise Lost, Paradise Regained, and Samson Agonistes.
Prerequisites: ENG 140 or permission of the Instructor.
ENG 470 W. B. Yeats
(4 credits)
Intensive reading of the poems, plays, essays, and autobiography of William Butler Yeats. Discussion.
Prerequisites: ENG 140 or permission of the Instructor.
ENG 490 Advanced Criticism
Intensive studies in criticism, often concentrating on a single school.
Prerequisites: ENG 140 or permission of the Instructor.
ENG 497 Apprentice College Teaching (2 or 4 credits)
An elective course open to any well-qualified upperclassman who wins consent of an instructor in the Department of English to assist in presenting an undergraduate
course. The apprentice should be capable of assuming limited classroom responsibility. May not be taken for credit toward the major.
Prerequisites: ENG 140 or permission of the Instructor.
ENG 498 The Theories of Teaching Literature, ( 4 credits) Language, and Composition
An exploration of the theoretical approaches to the disciplines associated with the teaching of English in the secondary school. The course will treat the interrelationship of the disciplines, the format of instruction which the theories propose, the selection of appropriate materials, and the discussion and observation of innovative programs. Prerequisites: English Secondary Education Majors only.
ENG 499 Independent Reading (2 or 4 credits)
Directed reading or research based on permission of the instructor. A proposal for a course of study must be submitted in the semester preceding that in which the independent study is to be taken. Prospectus forms are available in the English Department Office. Only three 499's may be credited toward the major. May be elected on an " S " or " N " grading basis.

ENG $500 \quad \begin{aligned} & \text { Advanced Topics in Literature and (4 or } 8 \text { credifs) } \\ & \text { Language }\end{aligned}$
ENG 510 Literature and Composition (4 credits)
ENG 533 Formal Analysis
(4 credifs)
ENG 534 Language History
(4 credits)
ENG 541 Literary History
(4 credits)
ENG 542 Literary History
(4 credits)
ENG 561
Literary Kinds
(4 credits)
ENG 562
Literary Kinds
(4 credits)
ENG 597
Apprentice College Teaching
(4 credits)
ENG 600
ENG 640
ENG 641
ENG 642
Studies in Language and Literature
(4 credits)
Studies in American Literature
(4 credits)
Studies in American Literature
(4 credits)
Studies in Old and Middle English (4 credits) Literałure
ENG 643 Studies in Renaissance Literature (4 credits)
ENG 644 Studies in Eighteenth Century Literature (4 credits)
ENG 645 Studies in Nineteenth Century Literature (4 credits)
ENG 646
ENG 647
Studies in Modern Literature
(4 credits)

ENG 648
Studies in the Structure of English
(4 credits)

ENG 690 The Master's Project Studies in Literary Theory
(4 credits)
(4 credits)

## ARTS AND SCIENCES

## DEPARTMENT OF HISTORY

| Professors: | Melvin Cherno, Chairman <br> Charles W. Akers <br> John Barnard <br> Richard M. Brace <br> Robert C. Howes <br> George T. Matthews <br> W. Patrick Strauss <br> S. Bernard Thomas |
| :---: | :---: |
| Associate Professors: | Leonardas V. Gerulaitis <br> Harold Gorvine (On leave 1972-73) <br> Gerald C. Heberle (On leave 1972-73) <br> Harold G. Lawrence <br> Paul M. Michaud <br> Anne H. Tripp <br> Richard P. Tucker |
| Assistant Professors: | De Witt S. Dykes, Jr. James D. Graham Mary C. Karasch Joseph A. Klaits Roy A. Kotynek Robert J. Krompart Lawrence D. Orton Carl R. Osthaus Colin A. Palmer <br> I. Michael Solomon |

The Department of History consists of professional scholars engaged in the study of American, Afro-American, Latin American, British, European, Russian, Chinese, Japanese, Indian, and African history and particularly of the intellectual, socio-economic, and institutional aspects of history. Such professional work combines factual knowledge with creative speculation and interpretation, and proficiency in it encompasses meticulous use of documentary evidence, disciplined imagination, and the ability to write lucid, persuasive prose.

The study of history at the undergraduate level has traditionally been considered one of the major paths to informed, independent, and effective citizenship. It leads most directly into secondary school and college teaching and other forms of professional historical scholarship. Moreover, its emphasis on broad knowledge,
critical judgment, and precise writing provides excellent pre-professional preparation for many other careers in government service, the law, the ministry, journalism, library and museum service, and business. Students who are interested in professional careers as historians should keep in mind that in graduate work they will ordinarily be expected to demonstrate competence in two modern foreign languages.

The Department of History offers a program of study leading to the degree of Bachelor of Arts. The student who majors in history should plan his or her course of study, in close consultation with a departmental adviser, following a pattern leading either to further study of history in graduate school, to secondary school teaching, or to enrollment in a postgraduate professional program. There is also a pattern for majors who wish to concentrate in area studies (see pp. 266-274.)

Students in Allport College, Charter College, and New College can complete most degree programs in history in eight semesters, but students in Allport College, Charter College, and New College who plan to complete a degree program with secondary school teaching certification should be willing to add a ninth semester in order to meet all requirements. The Department of History grants advanced placement in accordance with the University policy as explained on p. 18 of this catalog.

## Requirements for the Major in History

The major in history, with the exception of the student with an area studies concentration, must complete ten courses ( 40 credits) offered by the Department. Completing the major with an area studies concentration requires six history courses (24 credits). A normal program will involve work in more than one field of history.

## Requirements for the Secondary Teaching Minor in History

Completing a teaching minor in history (for all majors except social studies) requires 16 credits in Department of History courses, including HST 214, 215, plus 4 credits drawn from among UC $01 B$, UC 01E, UC 036, UC 062, UC 063, UC 064, UC 066, UC 068, UC 070, or a Colloquium in an appropriate area. For students majoring in social studies the teaching minor requires 20 credits in Department of History courses including HST 214, 215. Social studies majors who wish to elect this minor must confer with the Placement Office and/or the Office of the School of Education before planning their programs.

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## Department Courses and Course Prerequisites

Courses numbered 100-299 are introductory survey courses. Courses numbered 300-399 are more advanced courses dealing with more narrowly defined periods or problems; a better historical background and a higher level of performance are expected of the student, who may specifically anticipate more writing and discussion than in the introductory courses. Courses numbered 400-499 are research courses designed for history majors; the student is expected to have developed a good background in the particular field of the research course through relevant work at the 100-299 and 300-399 levels.

The prerequisites for the introductory and advanced courses offered by the Department of History are as follows: 100 -level courses: none; 200 -level courses: none; 300 -level courses: English proficiency certification plus special requirements listed beneath the courses; 400 -level courses: five or more courses in history including the special requirements listed beneath the courses. All prerequisites may be waived by special permission of the course instructor.

HST 100 Topics in History
(4 credits)
An introductory course to enable students to sample various historical problems and to develop critical judgment regarding the nature and use of historical evidence.

HST 141, 142 Introduction to European History (4 credits each) An integrated series of courses offering an introduction to European history from about A.D. 500 to the present, with an emphasis upon critical analysis of the basic economic, social, and political context of the successive transformations of Europe.
HST 141 (Europe 500-1715) is a survey of the Middle Ages, Renaissance, Reformation, and the Early Modern period through the Era of Lovis XIV. Offered each semester. HST 142 (Europe, 1715-present) is a survey of European history from the Enlightenment to the modern age of industrialism, nationalism, and global conflict. Offered each semester.

HST 214, 215 Introduction to American History (4 credits each) An integrated series of courses offering an introduction to American history from colonial times to the present.
HST 214 is a survey of the American political, economic, and intellectual history from the colonial period through the Reconstruction Era. Offered each semester.
HST 215 is a survey of American industrial growth, agricultural protest, experiments with imperialism, domestic reform, and world leadership from 1876 to the present. Offered each semester.

## HST 234, 235 History of England and British (4 credits each) Expansion

An infegrated series of courses offering an introduction to English and British history from the Middle Ages to the present.
HST 234 is a study of the Middle Ages and the rise of parliamentary institutions, the Tudor revolution in government, the Reformation and the rise of Puritanism, the civil

## ARTS AND SCIENCES

wars and the Glorious Revolution, and the culture of the Tudor and Stuart periods. Offered in alternate years.
HST 235 is a study of Britain under the Hanoverians in the eighteenth century, the age of industrialism and reform in the nineteenth century, and Britain's role in world politics of the twentieth century. Offered in alternate years.

## HST 251, 252 Introduction to Russian History (4 credits each)

 An integrated series of courses offering an introduction to Russian history from earliest times to the present.HST 251 is a study of the political, social, and intellectual history of the Russian nation from its origins to 1855. Offered in the Fall Semester.
HST 252 is an analysis of the history of the decline of the Russian monarchy and the rise of the Soviet state from 1855 to the present. Offered in the Winter Semester.

## HST 254 Eastern European History

(4 credits)
The historical development of the peoples and states of East-Central Europe and the Balkans-Poland, Ukraine, Czechoslovakia, Hungary, Rumania, Yugoslavia, and Bulgaria-from the Middle Ages to the present, with emphasis on the period since World War II.

## HST 277 Japan to 1800

(4 credits)
Japanese history from the pre-Buddhist period to the Tokugawas, with discussion of cultural and intellectual developments. Offered in the Fall Semester.

## HST 278 Japan since 1800

(4 credits)
Modern Japanese history emphasizing Japan's response to the West, with special study comparing the Japanese and Chinese experiences. Offered in the Winter Semester.

## HST 280 History of Southeast Asia

(4 credits)
The rise of regional empires and Indian and Chinese cultural influence; the impact of the Western imperial powers, especially the British, French, and American; and modern nationalisms, both secular and religious, both liberal and revolutionary. Offered in alternate years.

## HST 282 Introduction to the History of India (4 credits)

A survey of the history of India from the earliest emergence of a recognizable Indian identity during the second millenium B.C. until the establishment of the Republic of India in 1948. Offered in the Fall Semester in alternate years.
HST 286, 287 Survey of African History (4 credits each)
An integrated series of courses offering an introduction to the social, political, economic, and technological developments in Africa from prehistoric times to 1875.
HST 286 considers the precolonial history of Africa, or the history of Africa from earliest times to the sixteenth century. Offered in the Fall Semester.
HST 287 surveys the European colonization of Africa, the African slave trade to the Americas, and African resistance movements to imperialism from the sixteenth century to just prior to the partition of the continent at the Berlin Conference. Offered in the Winter Semester.
HST 291, 292 History of the Afro-American (4 credits each) People
An integrated series of courses offering an introduction to the institutional, intellectual, and cultural developments within the Afro-American community, with special notice given to the political, economic, and social context in which such developments occur.

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HST 291 surveys the Afro-American experience from the African background through the Civil War period. Offered in the Fall Semester.
HST 292 surveys the post-Civil War experience of the Afro-American people. Offered in the Winter Semester.

## HST 301 American Economic History

(4 credits)
Models and case studies of principal events in the growth and development of the American economy from colonial times to the present. Emphasizes the evolution of current historical thought under the impact of economic anaylsis. Identical with ECN 225.

## HST 306 Colonial and Revolutionary America (4 credits)

The transplantation of European society to continental North America; the subsequent development of political, economic and social institutions in the colonies; the AngloFrench struggle for the continent; and the American Revolution. Offered each fall.

## HST 307 The American Religious Experience (4 credits)

An introductory study of the religious history of the American people. Religion is broadly viewed as a social manifestation as well as a quest for moral and spiritual development. Offered each winter.

## HST 310 The Young Republic and the Age of Jackson, 1787-1850

The making of the Constitution, the social, political and economic development of the new nation and the subsequent forces affecting expansion, social protest and sectionalism to 1850. Offered in alternate years.

## HST 312 The Civil War and Reconstruction, 1850-1876 <br> (4 credits)

The origins of secession, the wartime problems of the Union and the Confederacy, the principal military campaigns, the Reconstruction Era and the creation of a new Union, and the significance of the Civil War and Reconstruction in American history. Offered each year.
HST 313 American History, 1876-1900
(4 credits)
The New South, industrial consolidation, the origins of the modern labor movement, the rise of the city, immigration, agrarian protest movements, the businessman's philosophy, and the challenge to laissez faire. Offered in alternate years.
HST 314 American History, 1900-1928 (4 credits) The social, political, and economic developments in the United States during the progressive era and the decade of the 1920's. Offered in alternate years.

## HST 315 American History since 1928

(4 credits)
The myth of the New Era, the social and political impact of the Great Depression, New Deal programs and radical alternatives, the isolationist-internationalist debate, modern Republicanism, and the New Frontier. Offered in alternate years.

HST 316 American Intellectual History to 1860 (4 credits)
The intellectual and cultural history of the American people from the colonial period to the Civil War. Offered in the Fall Semester.

## HST 317 American Intellectual History since 1860 (4 credits)

Major intellectual and cultural trends in the United States from the Civil War to the present. Offered in the Winter Semester.

## HST 318 Topics in American Social History

(4 credits)
Selected topics in the history of popular beliefs, social structure and organization, and the process of social change, including movements of reform. Offered in alternate years.
HST 319 History of the American South
(4 credits)
The South from colonial times to the 1960's, emphasizing the transition from the agrarian, slave South of the antebellum period to the modern South of the twentieth century. Offered each Winter.
HST 320 U. S. Diplomatic History to 1898 (4 credits)
The origins, formulation, and development of American foreign policy and diplomacy from the Revolution to the Spanish-American War, including such topics as neutrality and isolationism, the Monroe Doctrine, Manifest Destiny, and the Civil War. Offered in alternate years.

HST $321 \quad$ U. S. Diplomatic History since 1898 (4 credits) American foreign policy and diplomacy from the Spanish-American War to the present, including such topics as American imperialism, Caribbean and Far Eastern policies, involvement in the world wars and the Cold War, and nuclear diplomacy. Offered in alternate years.
HST 322 The Social History of American Education (4 credits) The educational impact of school, family, and church on American social and culfural life from the colonial period to the present. Offered in alternate years.
HST 323 Advanced Study in Afro-American (4 credits) History
Group reading and discussion, combined with independent research, on such subjects as the nature and scope of Afro-American history, bibliographical materials, the history of Afro-American history, and the Afro-American intellectual. Offered each year.
Prerequisites: HST 291 or HST 292.
HST 324 The Ancient Historians
(4 credits)
The aims, methods, achievements, and limitations of ancient historiography studied through a reading of the most prominent ancient historians in translation. Identical with CLS 324. Offered in alternate years.

## HST 325 Medieval Europe

(4 credits)
The European Middle Ages from about A.D. 400 to 1300 , with special emphasis on intellectual developments. Offered in alternate years.
HST 326 The Italian Renaissance (4 credits)
The European Renaissance period, with special emphasis on the Italian experience. Offered in alternate years.

## HST 327 The Northern Renaissance (4 credits)

European humanism, with special emphasis on the Lowlands, France, and Germany. Offered in alternate years.
HST 328 Europe in the Sixteenth Century (4 credits) A comparative analysis of European society, including such themes as the varieties of humanism; the spiritual crisis of Christendom; the structure of the Renaissance state and formulation of sovereignty, political rebellion, and social revolution; dynastic and ideological warfare; and the effects of the expansion of the West upon European society. Offered in alternate years.

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## HST 329 Europe in the Seventeenth Century (4 credits)

A comparative analysis of European society, including such themes as the articulation of absolutism and constitutionalism, the emergence of the European states system, the origins of modern science and rationalism, the culture of the baroque, the development of commercial capitalism, and the tension between new bureaucratic standards of relationship and the personalized nature of premodern society. Offered in alternate years.

HST 330 Medieval England
(4 credits)
The constitutional, economic, social, and religious developmen's in England before 1500, with attention to the European context in which these changes occurred. Offered in alternate years.
Prerequisites: HST 141 or HST 234.
HST 331 Tudor England, 1485-1603
(4 credits)
The emergence of England as an international power, the religious Reformation, and the changes in government, society, and culture. Offered in alternate years. Prerequisites: HST 141 or HST 234.

HST 332 Stuart England, 1603-1714
(4 credits)
The constitutional crises of the seventeenth century, the developments in economic, religious, social, and cultural life, and the beginnings of overseas expansion. Offered in alternate years.
Prerequisites: HST 141 or HST 234.
HST 334 Victorian and Edwardian England (4 credits) The political, cultural, and intellectual life of England from 1837 to the outbreak of World War I. Offered irregularly.

HST 335 Twentieth Century Britain
(4 credits)
The British adjustment to global wars, the later industrial revolution, mass democracy, and social change. Offered in alternate years.

HST 337 Hellenic Greece
(4 credits)
Greek history from the Bronze Age to the Peloponnesian War. Identical with CLS 337. Offered in alternate years.

## HST 339 Republican Rome <br> (4 credits)

Roman history from the regal period to the end of the Republic. Identical with CLS 339. Offered in alternate years.

HST 340 Imperial Rome
(4 credits)
Roman history from the principate of Augustus to the fall of the western empire. Identical with CLS 340. Offered in alternate years.

## HST 341 Europe since 1914

(4 credits)
An analysis of Europe in world perspective since World War I. Offered every year.

## HST 342 The Origins of Modern Germany (4 credits)

The ancient and medieval roots of German civilization, the political fortunes of the Holy Roman Empire and its member states, the development of the concept of German nationality, and the rise of the German nation-state in the nineteenth century. Offered in alternate years.
HST 343 Germany since 1870
(4 credits)
The history of the German nation-state, concentrating on constitutional and political developments in their social context. Offered every year.

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HST 344 Nineteenth Century Radicalism
(4 credits)
Doctrines of atheists, materialists, and socialists, followed by an evaluation of revolutionary movements with anti-theological implications. Offered in alternate years.

HST 347 Tools of Historical Research . (4 credits)
A course to acquaint students of history with the auxiliary sciences of that discipline, with special emphasis on historical bibliography and the use of the library. Offered in alternate years.
Prerequisite: Junior standing.

## HST 348 Europe in the Eighteenth Century (4 credits)

A comparative analysis of European society, including such themes as the old regime in Europe, the beginnings of industrial development and the resistance to modernization, the Enlightenment as a political and social movement, reform under the monarchy and the emergence of democratic ideologies, and the onset of the French Revolution. Offered in alternate years.

## HST 349 France in the Age of Absolutism and Enlightment

(4 credits)

The ancien régime in France from the end of the wars of religion to the beginning of the Revolution (1589-1789). Offered in alternate years.

## HST 352 Kiev and Muscovy

(4 credifs)
Russian history from the ninth to the seventeenth century with emphasis on the origins of the Kievan state and society, the struggle against the steppes, and the formation of a centralized Russia under the leadership of Moscow. Offered every third year. Prerequisite: HST 251.
HST 353 Imperial Russia (4 credits)
Russian history from Peter the Great to the Bolshevik Revolution: the growth of Russian national power, westernization, serfdom, reform and revolution. Offered in alternate years.
Prerequisites: HST 251 or HST 252.

## HST 354 Soviet Russia

(4 credits)
Russia and the Soviet Union from 1917 to the present: revolution and civil war, collectivization and industrialization, Stalinism, World War II, de-Stalinization, the Soviet Union and the world communist movement. Offered in alternate years. Prerequisite: HST 252.

## HST 355 Russian Intellectual History

(4 credifs)
The main developments in Russian thought during the nineteenth century, with an emphasis on the slavophiles, the westernizers, the Russian populists and socialists, and several of the great realistic writers. Offered in alternate years.
Prerequisites: HST 251 or HST 252.
HST 363 History of Southern South America (4 credits)
The social, political and economic history of Argentina, Brazil and Chile in the nineteenth and twentieth centuries; frontier expansion and Indian warfare, slavery and Empire in Brazil, regionalism and nationalism, industrialization and urbanization, and international relations. Offered annually.
HST 365 The Response to European Colonialism (4 credits)
A comparative examination of the responses of the peoples of Africa and Latin America to European expansion, with emphasis on such themes as acculturation, resistance movements, nationalism, and modernization. Offered in alternate years. Prerequisites: UC 064 or UC 068.

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## HST 366 Slavery and Race Relations in the <br> (4 credits) New World

A comparative approach to the study of slavery in North America, Latin America, and the Caribbean, and to the present state of race relations in the three areas. Offered in alternate years.

## HST 367 Pre-Columbian and Colonial Mexico (4 credits)

The scope and achievements of pre-Columbian Indian civilizations; the Spanish Conquest and its aftermath, the emergence of a multiracial society, the rise of creole nationalism and the achievement of political independence. Offered annually.

HST 370 China: Beginnings to Mid-T'ang, ca. 750 ( 4 credits) China's prehistoric and classical foundations, the first phase of imperial unification, the Han intellectual and state synthesis, and the aftermath of Han collapse, with special attention given to the effects of Buddhist, foreign, and heterodox native influences in the subsequent development of the $\mathrm{T}^{\prime}$ ang cosmopolitan universal state. Offered in alternate years.
Prerequisite: UC 062.
HST $371 \begin{aligned} & \text { China: Mid-T'ang to the Peak of (4 credits) } \\ & \text { Manchu Power, ca. } 1800\end{aligned}$
The institutional, intellectual, and aesthetic responses to the failure of $\mathrm{T}^{\prime}$ ang cosmopolitanism, the elaboration of gentry economic controls, neo-Confucian orthodoxy, the literati ethos, and Chinese accommodations to the problems of foreign encroachment and foreign rule. Offered in alternate years.
Prerequisite: UC 062.

## HST 373 Ninefeenth Century China

(4 credits) Imperial China during the half century preceding the Opium War of 1839-42, China's growing crisis in the context of the massive Western impact during the second half of the nineteenth century, and the collapse of the traditional Chinese order in the first two decades of the twentieth century. Offered each year.
Prerequisite: UC 062.

## HST 374 Nationalism and Communism in China (4 credits)

The patterns of revolutionary nationalism in China from 1919 to the present, focusing on the Nationalist (Kuomintang) and Communist periods. Offered each year. Prerequisite: UC 062.

## HST 375 Topics in Chinese Intellectual History (4 credits)

A historical investigation into Chinese philosophy from its emergence in the sixth century B.C. to the ascendancy of Confucianism during the Former Han Dynasty (208 B.C.-6 A.D.). Offered in the Winter Semester.

## HST 381 History of Early India

(4 credits)
The history of India from the most ancient times to the coming of the Mughals in the early years of the sixteenth century. Offered in the Fall Semester.

HST 382 Mughal and British India, 1526-1860 (4 credits)
Parallel analyses of Islamic, Hindu, and Sikh cultures in the premodern era, the Mughal empire and its regional opponents, the political fragmentation of the eighteenth century, and the social patterns which survived under the early British empire. Offered in alternate years.

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## HST 383 The Nationalist Era in India and Pakistan, 1860-1960 <br> (4 credits)

Modernization in Hindu and Muslim society, Hindu nationalism and the movement to create Pakistan, the growth of regional and inter-caste conflicts, the transition from liberal to revolutionary nationalism, and the politics of independence with special consideration of Gandhi's role. Offered in the Winter Semester.
HST 386 African Socialism
(4 credits)
The ideologies, tactics, and techniques of various recent socialist revolutions in Africa and the relation of African socialist aims to traditional and colonial Africa as well as to other forms of socialist thought and practice. Offered in alternate years.
HST 387 Northwestern Africa (the Maghrib) (4 credits) since 1830
The Maghrib from the time of the French occupation to the present. Offered at irregular intervals.

HST 388 Twentieth Century Africa (4 credits)
African resistance and nationalist movements from 1875 to the present and the development of Pan-Africanism and Négritude in colonial and contemporary times. Offered in alternate years.
Prerequisite: UC 064 or HST 287.

## HST 391 Directed Readings in History (4, 8, or 12 credits)

 Independent but directed readings designed for junior and senior majors in fields of history in which advanced courses are not available. Offered every semester. Prerequisite: Permission of the Instructor.HST $396 \quad$| The Ancient Near East: |
| :--- |
| The World of the Bible |

The historical, geographic, sociological, and intellectual environment reflected in the Bible, beginning with ancient Mesopotamian and Egyptian civilization and concluding with the Hellenistic period. Identical with CLS 396. Offered at irregular intervals.

## HST 397 History of the Second Jewish Commonwealth

The historical events from the return from Babylon to the end of the Second Commonwealth ( 538 B.C. to 70 A.D.), including a consideration of the Great Assembly, the emergence of the synagogue, the Sanhedrin and Jewish sects, the origins of Christianity, and Greek-Roman-Jewish relations. Identical with CLS 397. Offered at irregular intervals.

HST 411 Senior Seminar in American History (4 credits) Reading and research in selected topics. Offered each semester. Prerequisites: Two courses in American history.

HST 431 Senior Seminar in British History (4 credits)
Reading and research in selected topics of British cultural, social, and political history, from the sixteenth to the twentieth century. Offered in alternate years. Prerequisites: Two courses in British history.

HST 441 Senior Seminar in European History
Reading and research in selected topics. Offered each semester.
Prerequisites: Two courses in European history.

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HST 481 Seminar in Historiography (4 credits) Reading and research in topics analyzing the literature of historical inquiry and writing from the Greeks to the present. Offered irregularly.
Prerequisites: Four history courses.
HST 491 Directed Research in History (4, 8 or 12 credits) Directed individual research designed for advanced history majors. Offered each semester.
Prerequisite: Permission of the Instructor.

## DEPARTMENT OF LINGUISTICS

| Professor: | William Schwab, Chairman <br> (Linguistics and English) |
| :--- | :--- |
| Assistant Professors: | Peter J. Binkert <br> (Linguistics and Classics) <br> Daniel H. Fullmer <br> (Linguistics and English) <br> Carl W. Johnson <br> (Linguistics and Modern Languages) |
| Instructor: | Donald C. Hildum <br> (Speech Communication and Linguistics) |
| Associated Faculty | John W. Barthel <br> (German and Linguistics) |
| Associate Professors: | Don lodice |
| (French and Linguistics) |  |

Linguistics, the science of language, is concerned with the systematic study of language, language history, comparison of languages, and with the designing of models for natural languages and the theoretical implications of such designs in language acquisition and learning theory. As recent research has indicated, linguistics plays a pivotal role in studies dealing with the nature of the mind. Rapid expansion of knowledge in linguistics has involved such fields as anthropology, computer science, language teaching, speech pathology, sociology, and dialectology, and has produced the new disciplines of biolinguistics, mathematical linguistics, psycholinguistics, sociolinguistics, and machine translation as exciting and viable fields.

The Department of Linguistics offers programs of study leading to the degree of Bachelor of Arts with a liberal arts major in linguistics, and concentrations in linguistics on a joint basis with certain other departments in the College of Arts and Sciences. Students majoring in linguistics may complete their general education requirements through courses chosen from departmental offerings, from University courses, or in Allport College, Charter College, or New College. Programs should be developed in consultation with an adviser.

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The linguistics major at Oakland University, with its crossdisciplinary thrust, is designed to serve students who desire a general education as well as those who may be disposed to graduate work in linguistics and related fields. For both groups it should provide a broad, yet rigorous, course in the nature of language and human behavior and give a deeper comprehension of the instrument that uniquely distinguishes man from all other living things. For students interested in careers in the teaching of language, dialectology, and second-language teaching at the primary or secondary school level, concentrations in linguistics are available together with a modified major in another department.

## Programs for the Liberal Arts Major in Linguistics

Ten courses ( 40 credits) are required: seven courses in linguistics and three courses in a cognate field. Two of the seven courses in linguistics should be at the 100 or 200 level. Required courses include LIN 301 and 302. At least two courses must be selected from LIN 403, 404, and 410.

Cognates are available in the College of Arts and Sciences in the following fields: anthropology, classical languages, foreign languages, philosophy, and psychology. There is also a group of cognate studies, which emphasizes computer science, available in the School of Engineering. Other fields or special combinations may be approved by consultation with the departments concerned.

Cognates selected from anthropology should include a course in language in culture (LIN/AN 276). Cognates in English should include studies in the history and the structure of English (ENG 376 and 377). Cognates in classical languages and in modern languages should be in a second foreign language, not in the same immediate language family as that chosen to fulfill the requirements of the major. (No two modern Germanic or modern Romance languages, for example, would be acceptable.) Cognates in psychology should include a course in the psychology of communication (PSY 435). Cognates in philosophy should include a course in logic (PHL 370) and in philosophy of language (PHL 375). Some cognate courses, if carefully selected, may be used to fulfill general education distribution requirements.

Unless a concentration in speech communication has been selected, a liberal arts major in linguistics must complete two years' study, or the equivalent, of a foreign language, either classical or modern. The language requirement may be fulfilled by course work or examination demonstrating proficiency in the foreign language
beyond the fourth semester level. Students for whom English is a second language may consider English as a foreign language for purposes of the language requirement. The department recommends that students who satisfy their language requirement with a modern Indo-European language consider studying a classical language (Latin or Greek) or a non-Indo-European language (Swahili, Hebrew, or Chinese) in addition.

## Liberal Arts Major in Linguistics

(A Typical Program)

Semester 1
Learning Skills
LIN 176
Distribution Requirement
Distribution Requirement
Semester 3
Linguistics cognate
Foreign language (114)
Distribution Requiremen $\dagger$
Elective
Semesfer 5
LIN 301
Foreign language (214)
Linguistics cognate
Elective

## Semester 7

LIN 401
LIN 403
Distribution Requirement
Elective

## Semester 2

Learning Skills
LIN 177
Distribution Requirement
Distribution Requirement

## Semester 4

Linguistics cognate
Foreign language (115)
Distribution Requirement Elective
Semester 6
LIN 302
Foreign language (215)
Distribution Requirement
Elective

## Semester 8

Elective
LIN 404
Elective
Elective

## Special Programs

In line with recent developments in the University, exceptionally well qualified students may arrange, with advisers, special programs involving linguistics and other subjects and differing from the prescribed course sequences they would normally take upon declaring a major. For example, a student interested in sociology, anthropology, and linguistics might wish to arrange a viable program that provides the proper academic depth and appropriate training in all three areas. A student may also elect to graduate with a double major, one in linguistics and one in another subject,

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where the cognate area may serve partially to fulfill the requirements for the other major. Individual programs must be approved by a special adviser and the Committee on Instruction of the College of Arts and Sciences.

## The Linguistics Major with a Concentration in Speech Communication

A modified linguistics major with a concentration in speech communication is available for interested students. The concentration in speech communication requires:
(a) six courses ( 24 credits) in linguistics, and
(b) five courses ( 20 credits) in speech communication.

The courses in linguistics must include LIN 301, two of LIN 260, LIN 277, or LIN 335, two of LIN 401, LIN 404, or LIN 407, and one elective.

The five courses in speech communication must include SCN 201 and four electives, with SCN 303 highly recommended.

## Programs for the Concentration in Linguistics

The concentration in linguistics is available on a joint basis with other departments in the College of Arts and Sciences. A wide range of such combinations is possible: Students may major in English, modern languages, philosophy, psychology, and anthropology and may concentrate in linguistics at the same time. (Other majors may also be considered.) But the student must first be admitted to a departmental major and secondly be accepted into the concentration upon application to the Department of Linguistics.

## MAJOR IN ANTHROPOLOGY

The linguistics concentration for the anthropology major requires:
(a) five courses ( 20 credits) in linguistics, and
(b) five courses ( 20 credits) in anthropology.

The courses in anthropology must include AN 101 and AN 102, and any other three courses in anthropology. The five courses in linguistics should include LIN 276, LIN 301, LIN 401, LIN 404, and one other course in linguistics.

## MAJOR IN CLASSICS

The linguistics concentration for the classics major requires:
(a) five courses ( 20 credits) in linguistics, and
(b) five courses ( 20 credits) in classics.

The courses in linguistics should include LIN 301, LIN 302, LIN 403, LIN 404, and one elective.

The courses in classics should include two courses in the Latin language beyond Latin 215, two courses in the Greek language (Greek 114 and Greek 115 or beyond) and one elective.

## MAJOR IN ENGLISH

The linguistics concentration for the English major requires:
(a) five courses ( 20 credits) in linguistics, and
(b) six courses ( 24 credits) in English literature.

The courses in literature must include ENG 140 and any other five courses in English literature. The five courses in linguistics should include LIN 301, LIN 302, LIN 403, LIN 404, and one elective, either in linguistics or a course in English language analysis or history, such as ENG 376 or 377.

## MAJOR IN MODERN LANGUAGES (FRENCH, GERMAN, RUSSIAN, SPANISH)

The linguistics concentration for the French, German, Russian, or Spanish major requires:
(a) five courses ( 20 credits) in linguistics, and
(b) six courses ( 24 credits) in French, German, Russian, or Spanish language and literature beyond FRH, GRM, RUS, or SPN 215.

The modern language requirements are FRH, GRM, RUS, or SPN $311-312,371,372,461$ and one course at the 400 level. The five courses in linguistics should include LIN 301, LIN 302, LIN 403, LIN 404, and one elective. In addition, the modern language major must take FRH, GRM, RUS, or SPN 365, the applied linguistics of a particular foreign language.

## MAJOR IN PHILOSOPHY

The linguistics concentration for a philosophy major requires:
(a) five courses ( 20 credits) in linguistics, and
(b) six courses ( 24 credits) in philosophy.

The six courses in philosophy must include PHL 101, PHL 370, and PHL 375. The five courses in linguistics should include LIN 301, LIN 404, and three other electives in linguistics.

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## MAJOR IN PSYCHOLOGY

The linguistics concentration for a psychology major requires:
(a) four courses ( 16 credits) in linguistics, and
(b) six courses ( 24 credits) in psychology.

Five of the six psychology courses must be PSY 146, PSY 231, PSY 351 or 352, PSY 353, and PSY 435. Arrangements may be made for a psycholinguistics major to substitute a linguistics or other cognate course for the unspecified sixth psychology course. The linguistics courses should be LIN 301, LIN 302, LIN 403, LIN 404.

## MAJOR IN SOCIOLOGY

The linguistics concentration for the sociology major requires: (a) six courses ( 24 credits) in sociology, and (b) five courses ( 20 credits) in linguistics.

The courses in sociology must include SOC 100 and SOC 310, and any other four courses in sociology, though AN 410 may be substituted for one course in sociology.

The courses in linguistics must include LIN 276, LIN 301, LIN 277 or LIN 401, and two other courses above the 300 level to be elected in consultation with the Linguistics Department adviser.

## LIN 176 The Nature of Language: Its Humanity (4 credits)

An introduction to language as a conceptual system and the interrelationships of language and other cultural subsystems; social dialectology and lexicography; nonsystematic semantics, writing systems, and other topics related to the nature of language are examined.

## LIN 177 The Nature of Language: Its Theory

(4 credits)
An introduction to phonological, syntactic, and semantic systems; geographical dialects; the history of language; language acquisition and language universals.

## LIN 200 Topics in Linguistics

(4 credits)
Topics and problems selected by the Instructor.

## LIN 260 Biolinguistics <br> (4 credits)

The biology of language: A comparison of animal communication and human language; a study of the relationship between language disturbances, brain damage, and cerebral localization of language functions.

LIN 276 Language in Culture
(4 credits)
Language viewed as cultural behavior; its system, acquisition, and use; its relation to history and world view; language as both a reflection of, and influence on, attitudes and behavior; standard languages, social dialects, pidgins, and creoles; writing systems. Identical with AN 276.
Prerequisites: LIN 176, or AN 101, or AN 102, or permission of the Instructor.

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## LIN 277 Sound Patterns of American English (4 credits)

The fundamentals of articulatory phonetics with studies in American social and geographic dialects.

## LIN 301 Introduction to Linguistic Structures

(4 credits)
An introduction to synchronic linguistic analysis, with structural problems in natural languages.

## LIN 302 Historical Linguistics

(4 credits)
Diachronic linguistic analysis: language change, dialect geography, establishment of genealogical relationships, the reconstruction of earlier stages of languages, and the relationship of language change to synchronic analysis.
Prerequisites: LIN 301 or equivalent.

## LIN 335 Psycholinguistics

(4 credits)
A study of the psychology of language, the accommodation between the cognitive and physical structure of human beings and the structure of language, the nature of the language learning process, and the consequences of language use.
Prerequisites: One course in psychology and one course in linguistics, or permission of the Instructor.

LIN 360 Neurolinguistics
(4 credits)
The neurology of language: The essentials of neuroanatomy and neurophysiology; the neurological mechanisms underlying language; aphasia and kindred disorders of speech.
Prerequisites: LIN 260 or permission of the Instructor.

## LIN 365 Applied Linguistics

(4 credits)
A series of sections in French, German, Russian, and Spanish are offered in this course. Identical with FRH, GRM, RUS, and SPN 365.
Prerequisites: LANG 262 or permission of the Instructor.

## LIN 401 Phonetics

(4 credits)
An introduction to articulatory and acoustic descriptions of spoken language, and training in the recognition and production of sounds found in languages other than English.
Prerequisite: LIN 301.

## LIN 403 Phonology

(4 credits)
A presentation of theory and application of phonological analyses with emphasis on original work.
Prerequisite: LIN 301.

## LIN 404 Grammatical Analysis

(4 credits)
A presentation of theory and application of morphological and syntactical analyses, with emphasis on original work.
Prerequisite: LIN 301.

## LIN 407 Semantic Theory

(4 credits)
An inquiry into contemporary efforts, since the publication of Chomsky's Syntactic Structures, to formulate and articulate a theory of meaning adequate for the analysis of natural language, with emphasis on the relation between syntactic and semantic analysis.
Prerequisites: LIN 301 and one of either LIN 404 or PHL 370 or PHL 375.

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## LIN 410 Studies in the Structure of a Language (4 credits)

 A study of the structural aspects of an individual language to be determined by the instructor. Among the languages for study are French, German, Hindi-Urdu, Sanskrit. Prerequisites: LIN 301 or permission of the Instructor.LIN $428 \quad$| The Teaching of English as |
| :--- |
| a Foreign Language |

A study of modern techniques of teaching pronunciation, grammar, and vocabulary.
The preparation and use of language tests: laboratory techniques.
Prerequisites: IIN 301 or permission of the Instructor.

LIN 480 Seminar in Linguistics (4 credits)
Topics and problems selected by the instructor.
Prerequisites: LIN 301 and two LIN courses above 301, or permission of the Instructor.

## LIN 490 Independent Sfudy

Special research projects in linguistics.
Prerequisite: Permission of the Department of Linguistics.

## DEPARTMENT OF MATHEMATICS

Professors: Harvey J. Arnold (on leave)<br>Louis R. Bragg (on leave)<br>John W. Dettman<br>George F. Feeman, Chairman<br>William C. Hoffman<br>G. Philip Johnson, Dean of Graduate Studies<br>James H. McKay<br>Harvey A. Smith<br>Associate Professors:<br>Ronald A. DeVore<br>Jon Froemke<br>Donald G. Malm<br>Yel-Chiang Wu<br>Assistant Professors: Robert Casady<br>J. Curtis Chipman<br>Robert Fontenot<br>Gerald Garfinkel<br>Louis J. Nachman<br>Marion Orton<br>Irwin Schochetman<br>Robert Sharpley<br>Kent Westerbeck

The Department of Mathematics offers programs of study leading to the degrees of Bachelor of Arts with liberal arts major in mathematics, Bachelor of Arts with secondary teaching major in mathematics, Master of Arts in mathematics, and Master of Arts in Teaching in mathematics. In addition, the Department offers courses which are required or are used as electives in other programs of the University. For further information on graduate programs of the Department, see the Graduate Bulletin.

Students electing the liberal arts major in mathematics or the secondary teaching major in mathematics may complete their general education requirement in the College of Arts and Sciences or in Allport College, New College, or Charter College. They should make their choice in consultation with their departmental adviser and with the head of their chosen college.

A student with strong interest and ability in mathematics should consider taking MTH 190, 191, 290, and 291. (MTH 190 and 191 are for freshmen; MTH 290 and 291 are for sophomores.) These courses, which are to be taken concurrently with calculus, are

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designed to provide the student with an opportunity to experience mathematics on a more sophisticated level than is usually found in freshman and sophomore mathematics courses. The courses are independent of each other; a student may take any one of them at the appropriate level without having taken any of the preceding ones.

The Mathematics Department recognizes the need for multiple options for its majors and is currently studying curricular revisions in the applied mathematics area. Discussions are being held with representatives from economics, engineering, psychology, and the sciences to identify and develop approximate cross-departmental concentrations, in addition to the computer science concentration. It is anticipated that concentrations in mathematical science, operations research, statistics, and other areas will evolve from these discussions. Interested students are advised to speak to Department members before planning their programs.

## Requirements for the Liberal Arts Major in Mathematics

Forty (40) credits in mathematics are required for the major. The application of this requirement begins with students who have not yet taken any mathematics courses beyond MTH 255. Each student must take one of MTH 331, 351, or 451 and one of MTH 375 or 475 in his program.

The honors courses MTH 190, 191, 290, and 291 may count toward the major as separate one-credit courses. Apart from these honors courses only MTH 154, 155, 254, 322 and courses with MTH 254 as prerequisite may be used to satisfy the major requirement.

Two science courses (8 credits) are required; these are to be taken from the same department. Four courses ( 16 credits) in a subject related to mathematics are also required. (These courses must be taken in a single department.) If they are taken in a science they may be used simultaneously to satisfy the requirement in science.

Students planning to do graduate work in mathematics should take MTH 451 and MTH 475 in preference to MTH 351 and MTH 375. In addition, they should take MTH 452, 461, 476, and as many other mathematics courses, including courses at the 500 level, as their programs permit.

Students who are planning to do graduate work in mathematics should be aware that many graduate programs require reading

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knowledge of at least one foreign language for study beyond the master's degree level; it is important that such students include language study in their undergraduate program.

## Requirements for the Secondary Teaching Major in Mathematics

## Mathematics Course Requirements:

Thirty-six (36) credit hours of course work in mathematics are required. Twenty-four hours (six courses) are required as follows:
2 semesters of elementary calculus (MTH 154-155)
1 semester of linear algebra (MTH 254)
1 semester of analysis (MTH 351 or 451)
1 semester of abstract algebra (MTH 375 or 475)
1 semester of geometry (MTH 361)
The other twelve hours may be chosen from among MTH 255 (Multivariable Calculus) or the Department offerings numbering 322 or above. Each student must select one of MTH 322, 325, or 335 as part of the program. Only those courses which satisfy the liberal arts major in mathematics may be used to satisfy this requirement.

## Methods and Internship:

Students are invited to participate in tutorial efforts as early as the sophomore year. The requirements are as follows:

1. Sophomore and/or Junior Year
a. Students take Ed 244-245 (8 credits total).
b. Students provide tutorial assistance at Oakland, with guidance from Math. faculty, in courses such as MTH 120, 132, 133, 134, or the Academic Support Center. Each student in the program must register for MTH 497 Apprentice Teaching for four (4) credits either in the fall or winter term.
c. Winter term, Junior year (or after the accumulation of 80 credits toward graduation). Each student in the program must register for Ed 428 Math Methods (4 credits), a combination of methods work at Oakland and tutorial work in selected public schools, the latter with guidance from teachers in those schools.
2. Senior Year (or after the accumulation of 96 credits toward graduation)

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a. Fall term: Students do internship in the field. Each student will spend a full semester as an intern. A weekly seminar at Oakland will be required with this internship. Each student will receive 12 credits for the semester8 credits for Ed 455 and 4 credits for Ed 590. Registration must be done in this fashion.

Other Requirements and Recommendations:
A minor of 20 or 24 credits is required. If the minor is taken in one department, five courses ( 20 credits) are required. If the minor is taken in an area, six courses are required. Courses may be used to satisfy simultaneously minor requirements and distribution requirements.

It is recommended that secondary majors take a course on reading at the secondary level with specific work on reading problems in mathematics, a course on learning theory, and a course on child growth and development with emphasis on the teenage years.

## Requirements for the Secondary Teaching Minor in Mathematics

Five courses ( 20 credits) in mathematics are required, including MTH 154-155. It is recommended that the other courses be selected from MTH 226, 254, 255, 325, 326, 335, 336, 351, 361, and 375. (Only MTH 154, 155, and courses with MTH 155 as a prerequisite may be used to satisfy this requirement, except that the sequence MTH 190, 191, 290, 291 of four 1-credit courses can be substituted for one 4-credit course.)

## Concentration in Computer Science

For students majoring in mathematics, the requirements for the Concentration in Computer Science are 16 credits in Computer and Information Science (CIS) courses and four courses chosen from among MTH 322, MTH 325-326, MTH 331 or 351, MTH 335-336, or their 400-level equivalents. At least one 2 -term sequence is required. The mathematics courses taken may also be used to satisfy some of the requirements of the liberal arts or secondary education major in mathematics. It is recommended that the sequenc CIS 182-183-382 be completed early in the program.

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## Proficiency Examinations and Advanced Placement

Well-prepared freshmen who intend to major in mathematics, engineering, or science should plan to take MTH 154 as early as possible. A proficiency examination will be given by the Department of Mathematics, and students judged ready for calculus may enroll in MTH 154. Others must first pass MTH 132-133 or MTH 134; the Department of Mathematics will recommend the proper precalculus course in such cases for the individual student. MTH 132-133 may be taken only with the permission and advice of the Department of Mathematics.

Students who have not had trigonometry should plan to take a precalculus course before enrolling in MTH 154, regardless of the results of the proficiency examination.

Freshmen who have had calculus in high school may apply to the Department for advanced placement. Those having scores of 4 or 5 on the College Entrance Examination Board advanced placement test will receive credit for MTH 154-155. Others, including those with scores of 3 , will receive credit or advanced placement as deemed appropriate for their backgrounds.

## Course Offerings

Students should realize that while the Department will make every attempt to adhere to the scheduling of courses as presented in this catalog, special circumstances may occasionally necessitate changes. They should further realize that a number of the courses will be offered at times other than those indicated including, in particular, the Spring and Summer Sessions.

## MTH 120 Preparation for Mathematics for the (4 credits) Life and Social Sciences <br> A one-semester study of topics from algebra and geometry needed for entry into MTH 121. Graded on an $\mathrm{S} / \mathrm{N}$ basis. Requires permission of the Department.

MTH 121-122 Introductory Mathematics for (4 credits each) the Life and Social Sciences
Elementary set theory, number systems, functions, linear systems, linear programming, matrices, and the basic concepts, theorems, and applications of calculus. MTH 121 is offered in the Fall Semester; MTH 122 is offered in the Winter Semester.
Prerequisites: Three years of high school mathematics.
MTH 125 Introduction to Probability and (4 credits) Statistics
Elementary set theory, sample spaces, combinatorics, random variables, Chebyshev's inequality, Bernoulli trials, binomial distribution, joint distributions, and introduction

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to statistics. Offered on sufficient demand.
Prerequisites: Three years of high school mathematics.

## MTH 132-133 Precalculus

(4 credits each)
A one or two semester study, as needed, of material required for entry into MTH 134 or MTH 154, incuding selected topics from algebra, geometry and trigonometry. Graded on an S/N basis. Requires permission of the Department.

## MTH 134 Elementary Functions <br> (4 credits)

A one semester course covering material needed as a prerequisite to MTH 154-155. Topics covered include linear equations, polynomials, exponential and logarithmic functions, the trigonometric functions, and selected topics from analytic geometry. Graded on an $\mathrm{S} / \mathrm{N}$ basis.
Prerequisite: Three years of high school mathematics.
MTH 154-155 Calculus (4 credits each)
A comprehensive study of analytic geometry, limits, differentiation and integration of functions of one real variable. Each is offered in the Fall and Winter Semesters; MTH 155 is also offered in the Spring Session.
Prerequisites: MTH $132-133$ or MTH 134 or satisfactory performance on a proficiency examination.

## MTH 185-186 Mathematics-an Exploration (4 credits each) into Undergraduate Topics

An infroduction to topics selected from probability, calculus, linear algebra, group theory, number theory, abstract algebra, topology, projective geometry, logic, and foundations. The student will be expected to acquire familiarity and experience with abstract reasoning as it is applied in various areas of mathematics.
Prerequisites: Three years of high school mathematics and permission of the instructor.

## MTH 190 Topics in Mathematics

(1 credit)
Intended to provide the superior student with an introduction to the type of abstract reasoning used in advanced courses in mathematics. The course will be organized around one or more topics chosen from various areas of mathematics. Enrollment is limited to freshmen. Offered in the Fall Semester.
Prerequisite: Permission of the Department. MTH 154, 155, 254, or 255 must be taken concurrently.

## MTH 191 Topics in Mathematics

(1 credit)
Similar to MTH 190. Enrollment limited to freshmen. Offered in the Winter Semester. Prerequisite: Permission of the Department. MTH 155, 254, or 255 must be taken concurrently.

## MTH 226 Applied Statistics

(4 credits)
Int̂roduction to statistics as applied to the physical, biological, and social sciences and to engineering. Applications of special distributions, non-parametric techniques, regression analysis, and analysis of variance. Credit cannot be earned for both MTH 125 and MTH 226. Offered on sufficient demand.
Frerequisite: MTH 155.
MTH 254 Intermediate Calculus and Linear
(4 credits)

An introduction to linear analysis. Vectors, linear equations, linear transformations, matrices, determinants, eigenvalues, linear differential equations. Offered in the Fall and Winter Semesters.
Prerequisite: MTH 155.

## MTH 255 Intermediate Calculus

A study of infinite series, multiple integration, differential calculus of scalar and vector fields, line and surface integrals. Offered in the Fall and Winter Semesters. Prerequisite: MTH 254.

## MTH 290 Topics in Mathematics

(1 credit)
Similar to MTH 190. Enrollment limited to sophomores. Offered in the Fall Semester. Prerequisite: Permission of the Department. MTH 254 or 255 must be taken concurrently.

MTH 291 Topics in Mathematics
(1 credit)
Similar to MTH 190. Enrollment limited to sophomores. Offered in the Winter Semester. Prerequisite: Permission of the Department. MTH 255 must be taken concurrently.

## MTH 314 Structure of Number Systems

(4 credits)
Emphasizes the logical structure of the real number system. Properties of the natural numbers, integers, rational numbers, and real numbers are carefully proved. Computational techniques and teaching methods which pertain to the mathematics of the elementary grades. Enrollment is limited to majors in elementary education. Not open to freshmen. Offered in both the Fall and Winter Semesters.
Prerequisites: Two years of high school mathematics.

## MTH 315 Algebraic Structures

(4 credits)
From properties of numbers, algebraic concepts are developed; examples of other algebraic systems are investigated to show the generality and structure of algebra. Enrollment is limited to majors in elementary education. Not open to freshmen. Offered in both the Fall and Winter Semesters.
Prerequisites: Two years of high school mathematics.

## MTH 316 Topics in Geomefry

(4 credits)
An informal approach to geometry including topics selected from Euclidean geometry and transformation geometry with emphasis on ruler and compass constructions and the concept of symmetry. Enrollment is limited to majors in elementary education. Not open to freshmen. Offered in both the Fall and Winter Semesters.
Prerequisites: Two years of high school mathematics.
MTH 322 Mathematical Models in the Social

Formulation in mathematical terms of phenomena from the social sciences, solution of the resulting mathematical problems, and the inferpretation of results. Models will be drawn from economic theory, ecology, theoretical sociology, and management science. Offered in the Winter Semester.
Prerequisites: MTH 122 or 154 or permission of the Department.

## MTH 325-326 Introduction to Mathematical (4 credits each)

 StatisticsA study of random variables and distributions, random sampling, point estimation, interval estimation, tests of hypotheses, regression, and distribution-free methods. The theory is illustrated through applications to various fields. MTH 325 is offered every year; MTH 326 is offered every other year.
Prerequisite: MTH 255.

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## MTH 331 Advanced Calculus (4 credits)

Review of vectorial concepts and formalism. Differential calculus of $\mathrm{R}^{\mathrm{n}}$. Differential forms, vector integral theorems, and Stokes' Theorem. Advanced topics in infinite series. Improper integrals and Laplace transforms. Computational as well as theoretical aspects will be emphasized.
Prerequisites: MTH 254 or MTH 255 (This is an applied math alternative to MTH 351.)

## MTH 335-336 Introduction to Numerical (4 credits each) Analysis

An introduction to mathematical methods appropriate to computer work. Topics treated include interpolation, approximation, quadrature, solution of differential equations, and matrix computation. MTH 335 is offered every year; MTH 336 is offered every other year.
Prerequisites: MTH 254 for 335; MTH 255 for 336.
MTH 351 Introduction to Analysis
(4 credits)
A development of the properties of functions of one real variable, including a study of sequences, limits, continuity, differentiation, and integration. Offered in the Fall Semester.
Prerequisite: MTH 254.
MTH 352 Complex Variables
(4 credits)
Analytic functions, integral theorems, series expansions, and theory of residues. Offered every year.
Prerequisite: MTH 255.

## MTH 355 Ordinary Differential Equations (4 credits) With Applications

First order equations, systems of equations of first order, linear equations, power series methods, linear second order equations, self-adjoint equations.
Prerequisites: MTH 254 or permission of the Department.
MTH 361 Geometric Structures (4 credits)
A study of topics from Euclidean geometry, projective geometry, non-Euclidean geometry, and transformation geometry. Offered in the Winter Semester. Prerequisite: MTH 254.

## MTH 372 Number Theory

(4 credits)
Number-theoretic functions, diophantine equations, congruences, and quadratic residues. Offered every year.
Prerequisite: MTH 254.
MTH 373 Advanced Matrix Algebra
(4 credits)
Matrices, determinants, inverse matrix, linear systems, matrix calculus, Jordan forms, special matrices, with applications.
Prerequisite: MTH 254.
MTH 375 Introduction to Abstract Algebra (4 credits)
An introduction to the basic concepts of abstract algebra, including groups, rings, and fields. Offered in the Winter Semester.
Prerequisite: MTH 254.
MTH 405 Special Topics
Advanced study of some topic in mathematics. May be taken more than once.
Prerequisite: Permission of the Department.

# MTH 410 Elementary School Mathematics and (4 credits) the Computer 

Selected topics in mathematics useful to elementary school teachers in line with current curriculum developments. Computer assisted programs will be emphasized. Prerequisites: MTH 314, or permission of the Department. Enrollment is limited to majors in elementary education with a math/science concentration.

## MTH 415 Foundations of Mathematics

(4 credits)
An examination of the logical foundations of mathematics including analysis of the axiomatic method, basic set theory, cardinal and ordinal numbers, and the axiom of choice.
Prerequisites: MTH 351 or MTH 451 or permission of the Department.

## MTH 416 Concepts of Geometry

(4 credits)
A development of geometry from an algebraic and metric viewpoint, concentrating on Euclidean geometry. Especially appropriate for Master of Arts in Teaching candidates.
Prerequisite: Permission of the Department.

## MTH 422 Mathematical Methods in Operations <br> (4 credits) Research

Decision problems in operations research, classical optimization techniques, mathematical programming, queveing theory, game theory and decision making, graphs and networks.
Prerequisites: MTH 331, MTH 373, or permission of the Department.

## MTH 425 Probability

(4 credits)
Combinatorial analysis, conditional probability, random variables, generating functions, recurrent events, random walk problems, Markov chains, and stochastic processes. Prerequisites: MTH 325 or permission of the Department.

## MTH 431 Methods of Mathematical Physics (4 credits)

Series solution of ordinary differential equations, special functions, separation of variables in various coordinate systems, boundary value problems, eigenvalue problems, Fourier series and integrals, Laplace transforms. Offered in the Winter Semester. Prerequisite: MTH 255.

## MTH 435 Introduction to Mathematical Science (4 credits)

The alegbraic structures of scientific phenomena. Differential equations and dynamical systems. Partial differential equations of the physical and life sciences. Introduction to mathematical modeling.
Prerequisite: MTH 255.

## MTH 451-452 Analysis

(4 credits each)
An infroductory course in real analysis. Topics covered include the topology of $\mathrm{R}^{\mathrm{n}}$, limits, continuity, differentiation, Riemann integration, uniform continuity and convergence, Riemann-Stieltjes integration, and differentiation and integration in $\mathrm{R}^{\mathrm{n}}$. MTH 451 is offered in the Fall Semester; MTH 452 is offered in the Winter Semester. Prerequisite: MTH 255.

## MTH 461 General Topology

(4 credits)
A study of topological spaces and continuous functions. Separation and countability properties, connectedness, compactness, and local properties will be covered. Offered in the Fall Semester.
Prerequisites: MTH 351 or MTH 451 or permission of the Department.

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## MTH 463 Graph Theory and Combinatorial Mathematics

An introductory course in combinatorics. Topics covered will include techniques of enumeration, fundamental concepts of graph theory, and applications to transport networks, matching theory, and block design.
Prerequisite: MTH 254.

## MTH 465 Differential Geometry

(4 credits)
Theory of curves and surfaces in Euclidean space with an introduction to the theory of matrix Lie groups.
Prerequisite: MTH 255.
MTH 475-476 Abstract Algebra
(4 credits each)
Algebra of sets and mappings, groups and homomorphisms, rings and ideals, factorization and divisibility, vector spaces, linear transformations, fields and field extensions. MTH 475 is offered in the Fall Semester; MTH 476 is offered in the Winter Semester.
Prerequisite: MTH 254.

## MTH 490 Independent Study

(2 or 4 credits)
Library research on some mathematical topic.
Prerequisite: Permission of the Department.

## MTH 497 Apprentice College Teaching (2 or 4 credits)

Open to any well-qualified upperclassman who obtains consent of a faculty member to assist in presenting a regular college course. The apprentice should be capable of assuming limited classroom feaching duties.
Prerequisite: Permission of the Instructor involved.

## MTH 504 Review of Abstract Ideas

(4 credits)
This course is a review of mathematical concepts, including topics from set theory, logic, number theory, algebra, and analysis. It is intended to be a transitional course for those who are interested in the MAT program but need refresher work. It may not be used for credit toward the degree.
Prerequisite: Permission of the Department.

## MTH 510 The Secondary Mathematics Curriculum (4 credits)

This is a seminar course which will examine in depth some of the problems of the secondary mathematics curriculum. Topics discussed will be determined jointly by the instructor and the students. Emphasis will be in the role and responsibility of the secondary teacher in developing the curriculum.
Prerequisite: Permission of the Department.

## MTH 511 Mathematics for the Elementary School Teacher I

Study of the structure of the real number system, elementary number theory, introduction to abstract mathematical structures.
Prerequisite: Permission of the Department.

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## MTH 513 Topics in Elementary School Mathematics (4 credits)

Topics in elementary mathematics selected in keeping with the latest trends in elementary school curriculum reform. Methods of teaching these topics are studied simultaneously with the topics themselves for the purpose of creating appropriate curriculum and testing materials.
Prerequisites: MTH 314, 315, and 316 or MTH 511 and 512 or permission of the Department.

## MTH 514 Concepts in Abstract Algebra

(4 credits)
Designed for Master of Arts in Teaching candidates. Includes topics from groups, rings, fields, matrices, linear transformations, and vector spaces. Offered every othor year. Alternates with MTH 517.
Prerequisite: Permission of the Department.

## MTH 516 Computers and Secondary Mathematics (4 credits)

This course is an introduction to the computer with emphasis on use of the computer in secondary mathematics courses, along with selected mathematics laboratory activities.
Prerequisite: Permission of the Department.

## MTH 517 Concepts in Analysis (4 credits)

Designed for Master of Arts in Teaching candidates. Includes a study of real and complex numbers, functions, limits, differentiation, integration, and infinite series, with emphasis on careful proofs of theorems. Offered every other year. Alternates with MTH 514.
Prerequisite: Permission of the Department.

## MTH 519 Linear Mathematics and Mathematical (4 credits) Models

This course will include topics from linear algebra, game theory, and linear programming with applications to the social sciences.
Prerequisites: MTH 254 or permission of the Department.
MTH 525-526 Probability and Statistics (4 credits each)
Combinatorial analysis, random variables, central limit theorem, recurrent events, distribution theory, sampling, statistical estimation, hypothesis testing, regression analysis, analysis of variance, and applications.
Prerequisite: Permission of the Department.
MTH 531 Mathematical Methods in Engineering I (4 credits)
Vector spaces and matrices, eigenvalue problems, applications to systems of differential equations, numerical methods in linear algebra. Infinite series, Taylor's series, power series methods in differential equations. Offered in the Fall Semester.
Prerequisite: Permission of the Department.

## MTH 532 Mathematical Methods in Engineering II (4 credits)

 Functions of several variables, vector field theory, partial differential equations, boundary value problems, Fourier series, and Fourier integrals. Offered in the Winter Semester.Prerequisite: Permission of the Department.

## MTH 541-542 Advanced Mathematical Science (4 credits each)

Structure of dynamical systems. Application to mechanics, wave motion, diffusion, and statistical mechanics. Dynamical systems and control theory in economics and

## ARTS AND SCIENCES

the life sciences. Fundamental mathematical structures of the physical, life, and social sciences. The role of probability and statistical inference. Prerequisites: MTH 465 or the equivalent.

## MTH 551-552 Real Analysis (4 credits each)

The general theory of measure and integration, including development of the Lebesgue integral, the classical Banach spaces, and elements of functional analysis. Prerequisite: MTH 452.

## MTH 555-556 Complex Analysis (4 credits each)

Analytic functions, Cauchy's theorem, representation theorems, analytic continuation, Riemann surfaces, conformal mapping.
Prerequisite: MTH 452.

## MTH 561-562 Topology <br> (4 credits each)

MTH 561 is an introduction to algebraic topology. Topics covered include elementary homotopy and homology theory. MTH 562 will cover various topics in algebraic and general topology at the discretion of the instructor.
Prerequisites: MTH 476 and MTH 461.

## MTH 565 Topological Algebraic Structures <br> (4 credits)

A brief survey of topological groups, vector spaces, and algebras followed by detailed study of one or more special cases, such as locally compact groups, Lie groups, Lie algebras, Banach spaces, or Banach algebras.
Prerequisite: Permission of the Department.

## MTH 571-572 Algebra (4 credits each)

Group theory, rings and modules, linear and multilinear algebra, and field extensions. Emphasis is placed, where possible, on categorical properties and functorial relationships.
Prerequisite: MTH 476.

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## ARTS AND SCIENCES

| DEPARTMENT <br> AND LITERATU | F MODERN LANGUAGES ES |
| :---: | :---: |
| Professors: | Norman Susskind (French), Chairman <br> Alfred J. DuBruck (French) <br> Helen Kovach (Russian) <br> Carmine R. Linsalata (Spanish) <br> Richard A. Mazzara (French) <br> Jack R. Moeller (German) <br> Robert E. Simmons (German) <br> Amitendranath Tagore (Chinese) |
| Associate Professors: | John W. Barthel (German) <br> William C. Bryant (Spanish) <br> Dolores M. Burdick (French) <br> Renate Gerulaitis (German) <br> Dmytro ljewliw (Russian) <br> Don R. Iodice (French) <br> Kathryn M. McArdle (Spanish) <br> Munibur Rahman (Hindi-Urdu) <br> Carmen M. Urla (Spanish) |
| Assistant Professors: | Norman M. Brown (German) Carlo Coppola (Hindi-Urdu) William D. Jaymes (French) John Marney (Chinese) |
| Instructors: | Jerry M. Freeman (Russian) <br> Reiner M. Guertler (German) <br> Roy I. Madsen (French) <br> Mariano Pallarés (Spanish) <br> David Saint-Amour (French) |
| Special Instructors: | Cordell W. Black (French) <br> Lee M. Corrigan (Russian) <br> Anna R. Massacesi (Spanish) <br> Norbert Noeldechen (German) <br> Shih-Chen Peng (Chinese) <br> Lieselotte T. Schachner (German) |
| Visiting Lecturer: | Joshua Chorowsky (Hebrew) <br> Mordecai L. Opher ((Hebrew) |
| Associated Faculty Instructor: | Carl W. Johnson (Swahili) <br> (Linguistics and Modern Languages) |

The aim of the modern language curriculum is to help students acquire competence in the language of a given country and, through the study of its literature and civilization, to acquaint them

## ARTS AND SCIENCES

with the cultural background of that country. The major in a modern foreign language and its literature is primarily a humanities major. It also prepares the student for professional graduate work, for teaching at the secondary and elementary levels, and for other careers.

Students whose main interests lie in other fields may wish to investigate the advantages of combining them with competence in a foreign language. Today the thorough knowledge of a foreign language has as much practical as intellectual validity. Students interested in study abroad, graduate work, or non-academic careers may get assistance in the Department from special advisers who are familiar with the possibilities in these areas.

A variety of approaches is used. In classes aimed at developing ability to speak, read, and write, instruction is integrated with work in a complete language laboratory. Most intermediate and advanced courses are conducted in the language concerned, for all courses are designed to improve a student's proficiency in a particular language. In French, Spanish, German and Russian there are courses where attention is focused on reading. Because in these courses no time is devoted to aural comprehension, writing, or speaking, progress in the single remaining skill can be much faster. Some of these courses use programmed material, which permits the student to move ahead at his or her own pace.

The selection of language to study should be a reasoned, not a random one. It is usually best to continue with a language studied in high school. However, if students wish to learn a language not widely taught at the secondary level, they should not hesitate to change. Those who need advice about these choices are urged to consult with a member of the Department.

## Placement Examinations

Two language tests are administered by the Department. The Modern Language Aptitude Test is designed to indicate aural ability. Test results are used in helping students to select the 101 or 114 series courses in French, German, and Spanish. Students who enter Oakland University with previous study in French, German, or Spanish take the Placement Examination. This examination tests skills in the specific foreign language in order to insure placement at a level commensurate with the student's ability.

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## Departmental Programs

The Department of Modern Languages and Literatures offers programs of study leading to the degree of Bachelor of Arts with the following majors: the liberal arts major in a modern language; the liberal arts major in a modern language with a concentration in linguistics or area studies; the liberal art majors in Chinese language and civilization, in Latin American languages and civilization, and in Russian language and civilization; and the secondary teaching major in a modern language. The Department also offers a secondary teaching minor in a modern language and a modern language concentration for the elementary teacher. Students may plan individual programs with the aid of an adviser to achieve maximum flexibility in course work offered to satisfy the degree requirements.

## Requirements for the Liberal Arts Major in a Modern Language

The requirement is nine courses ( 36 credits) in the chosen language, its culture, and its literature beyond 215. Ordinarily these include two sequences, Composition and Conversation 311312 and Introduction to Literature 371-372 (the sequences may be taken concurrently), and five advanced courses at the 300-499 level. Majors in French, German, and Spanish must complete a departmental reading list. Majors in French and Spanish must participate in a senior level course (485), which is based upon materials from the reading list. This course is ordinarily scheduled during the student's eighth semester. Majors are urged to elect courses in other literatures, history, philosophy, art, linguistics, and area studies related to their major. Those planning to do graduate work are strongly urged to begin work in a second language to be recommended by the Department.

## Requirements for the Liberal Arts Major in a Modern Language with a Concentration in Linguistics

A modified major in a modern language with a concentration in linguistics is available for interested students. For concentrations in French and linguistics, German and linguistics, Russian and linguistics, and Spanish and linguistics, see p. 179.

## Requirements for the Liberal Arts Major in Chinese Language and Civilization

The requirement in Chinese for this major is eight courses (36 credits), ordinarily CHE 114-115, 214-215, and four others selected

## ARTS AND SCIENCES

from departmental offerings in consultation with an adviser. Five China area courses ( 20 credits) beyond UC 062 and including AS 490 are also required. For more information on this program, see the programs offered by the Language and Area Center for East Asia on pp. 267-268 of this catalog.

## Requirements for the Liberal Arts Major in Latin American Languages and Civilization

The requirement in Spanish for this major is six courses (24 credits) beyond SPN 214-215 selected from departmental offerings in consultation with an adviser. Five additional courses ( 20 credits), including AS 490, focused on the Latin American area and chosen from appropriate offerings from other departments within the College of Arts and Sciences, are also required.

An alternative language requirement for this major is four courses ( 16 credits) in Spanish beyond SPN 214-215, and three courses ( 15 credits) in Portuguese language and literature.

## Requirements for the Liberal Arts Major in Russian Language and Civilization

The requirement in Russian for this major is eight courses (36 credits), ordinarily RUS 114-115, 214-215, and four others selected from departmental offerings in consultation with an adviser. Five area courses ( 20 credits) selected from Slavic studies course offerings and including AS 490 are also required. For more information on this program, see the Slavic studies program on pp. 270-271 of this catalog.

## Requirements for the Secondary Teaching Major in a Modern Language

The requirement is eight courses ( 32 credits) in the chosen language and its literature (French, German, Russian, Spanish) beyond 215. (No teaching major is offered in Chinese.) Ordinarily these include two sequences, Composition and Conversation 311 312 and Introduction to Literature 371, 372 (the sequences may be taken concurrently), 365, 461 and two other courses at the 400-499 level. All majors (except Russian) must complete a departmental reading list, and all majors (except Russian and German) must participate in a senior level course (485), which is based upon materials from the reading list. This course is ordinarily scheduled during the student's eighth semester. In addition, 20 credits in education are required: ED 244, 245, ED 428, and ED 455.

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## Requirements for the Secondary Teaching Minor in a Modern Language

The requirement is four courses ( 16 credits) in the chosen language beyond 215. These normally include Composition and Conversation 311-312 and Advanced Composition and Conversation 461. The fourth course usually recommended is 365 , but 371 or 372 may be taken in its place. Students are strongly urged to take as many additional courses at the 300-499 level as their schedules will permit.

## Requirements for an Elementary Teaching Concentration

The modern language concentration is designed for students who wish to teach a foreign language in the elementary grades or at the junior high school level. The requirements are the same as those for the teaching minor (above). For complete details on other requirements, including courses in education, see pp. 315-318.

## Chinese Language and Literafure

CHE 114-115 First Year Chinese
(5 credits each)
An introduction to modern Mandarin Chinose (Kuo-yu), emphasizing both conversation and reading.

CHE 214-215 Second Year Chinese (5 credits each)
Continued study of Kuo-yu with increasing emphasis on reading and composition. May be conducted as a futorial.
Prerequisites: CHE 114-115 or permission of the instructor.
CHE 310 Literary Chinese (4 credits)
Studies based upon literary texts of Confucius, Mo Tzu, etc.
Prerequisites: CHE 215 or permission of the instructor.
CHE 312 Advanced Pai-hua
(4 credits)
This will be an intensive course in spoken colloquial Chinese, with emphasis on grammatical constructions and sentence patterns.
Prerequisites: CHE 215 or permission of the instrucfor.

## CHE 320 Readings in Chinese Newspapers (4 credits)

Selections from newspapers of mainland China, Taiwan, and southeast Asia. Prerequisites: CHE 215 or permission of the instructor.

## CHE 330 Readings in Chinese Communist Documents

Studies in documentary style of Chinese, selected mainly from writings of twentieth century political leaders of China.
Prerequisites: CHE 215 or permission of the instructor.

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CHE 340 Twentieth Century Chinese Literałure (4 credits)<br>Studies in the modern pai-hua literature, including short-stories, poems, essays, pamphlets.<br>Prerequisites: CHE 215 or permission of the Instructor.

CHE 410 Traditional Chinese Fiction and Drama (4 credits) Studies in texts and criticism of classical drama from Yüan and other dynasties. Prerequisites: CHE 310, or CHE 320, or permission of the Instructor.

## CHE 421 Selected Classical Texts

(4 credits)
Studies of texts in advanced literary Chinese.
Prerequisites: CHE 310 or CHE 312 or permission of the Instructor.

## CHE 431 Classical Chinese Stories <br> (4 credits)

Studies of selected stories from different classical Chinese sources.
Prerequisites: CHE 310 or CHE 312 or permission of the Instructor.

## CHE 440 Chinese Poetry

(4 credifs)
Selections from either classical T'ang and Sung Dynasty poems or from the post-May4th movement of poetry.
Prerequisites: CHE 310, or CHE 320, or permission of the Instructor.
CHE 490 Directed Readings and Research in Chinese
(2, 4, or 8 credits)
For students with a high degree of competence in the language. Might be conducted either in literary Chinese or in modern languages.
Prerequisites: Major standing and permission of the Instructor.

## French Language and Literature

FRH 101 Elementary Reading in French (4 credits)
The course will emphasize the reading and comprehension of French. There will be a good deal of translation involved, and class attendance will be obligatory. To be followed by FRH 102. Not open to prospective majors.

FRH 102 Elementary Reading in French
(4 credits)
FRH 102 will continue Fall 1972 in the present programmed and self-paced format, but will be revised in conformity with the above description of FRH 101 beginning Winter 1973. To be followed by FRH 201-202. Not open to prospective majors.
FRH 114-115 First Year French (5 credits each)
Devoted to aural-oral adaptation, the study of fundamental speech patterns, practice in writing, and the reading of graded texts. Not ordinarily open to students who have had two or more years of secondary school preparation. Admission contingent upon departmental testing. To be followed by FRH 214-215.

FRH 201-202 Infermediate Reading in French (4 credits each) Continued development of reading skill, extensive readings in cultural and liferary texts, and unedited materials of various kinds.
Prerequisites: FRH 102 or placement by departmental testing. Not open to prospective majors.

FRH 214-215 Second Year French
(5 credits each)
Devoted to aural-oral adaptation. Review of grammar essentials and more infensive

## ARTS AND SCIENCES

practice in developing speaking and writing skills combined with reading of liferary and cultural texts.
Prerequisites: FRH 115 or an appropriate placement examination score.

## FRH 285, 286 Main Currents of French Thought and Literafure

( 4 credits each)
Man and society as seen in the works of representative authors from the Renaissance to the present. Lectures and readings in English.
FRH 285 covers the period from the Renaissance to the nineteenth century.
FRH 286 deals with the nineteenth and twentieth centuries.
Open to French majors as elective only; does not carry credit foward departmental major.
Prerequisites: Sophomore standing or permission of the instructor.

## FRH 287 Studies in Black Literature Written in French

(4 credits)
Selections from black authors in French-speaking Africa and the West Indies. Study of the expressions of African culture from the continent (North Africa, West Africa), as well as that literature developing in these different environments: Martinique, Haiti, Guadeloupe. Readings, lectures, discussions in English. Open to French majors as elective only; does not carry credit toward departmental major.
Prerequisites: Sophomore standing or permission of the instructor.

## FRH 290 Directed Readings in French (2 or 4 credits)

A reading course for non-majors interested in research in a particular area. Approximately 50 hours of reading per credit; one conference weekly with the instructor. May be repeated for credit.
Prerequisites: FRH 202, or FRH 215, or permission of the Department.

## FRH 311-312 French Composition and (4 credits each) Conversation

Devoted to increasing the student's command of the language and familiarizing him with idiomatic French. Intensive practice in oral and written composition as well as translation. Techniques of textual analysis and exposition are introduced. Conducted primarily in French.
Prerequisites: FRH 215 or an appropriate placement examination score. Especially qualified freshmen may be admitted.

## FRH 351 French Civilization

(4 credits)
A survey of French achievements in art, music, and other cultural fields. Emphasis will be placed on the various aspects of French culture in daily life. Conducted primarily in French.
Prerequisites: FRH 215 or an appropriate placement examination score.

## FRH 365 Applied Linguistics of French

An introduction to modern linguistic insights with particular reference to their applicafion in the understanding and teaching of the contemporary language; a brief survey of the nature of the linguistic changes underlying the development of modern French. Required for secondary teaching majors. Identical with LIN 365.
Prerequisites: FRH 312 or permission of the Instructor.

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FRH 371, 372 Introduction to French (4 credits each) Literature
The study of masterpieces of French literature. Classwork and oral and written reports in French.
Prerequisites: FRH 215 or an appropriate placement examination score. Especially qualified freshmen may be admitted. Instructor should be consulted if courses are to be taken out of sequence.

## FRH 404 French Films

(4 credits)
This course attempts to introduce the student to French cultures and thought via the cinematic medium. Lecture, film viewing and discussion. Whenever obtainable, the scenario will be read.
Prerequisite: Permission of the Instructor.

## FRH 411 Literature of the French Renaissance

(4 credits)
Literary, intellectual, and linguistic trends as seen in selected works of principal authors of this period: Rabelais, Marot, Montaigne, Ronsard, and others. Conducted in French. Prerequisite: FRH 372.

## FRH 421, 422 Seventeenth Century French Literafure

 (4 credits each)FRH 421 deals with the development and character of French Classicism: Descartes, Pascal, the novels of D'Urfé and Mme de La Fayefte, the theatre of Corneille and Racine.
FRH 422 is principally a study of Molière and La Fontaine. Selections from the great prose writers: La Rochefoucauld, Mme de Sévigné, Bossuet, La Bruyère, Fénélon, Saint-Simon, Bayle, and Fontenelle. These courses are conducted in French.
Prerequisite: FRH 372.

## FRH 431, 432 Eighteenth Century French Literature

(4 credits each)
FRH 431 deals with the development of the philosophical spirit from Bayle to Voltaire; the interplay between France and England, the comedy of Marivaux and Beaumarchais and developments in the novel.
FRH 432 deals with political, social, and ethical thought of the Enlightenment; the Encyclopedists and later Philosophes. Primarily a study of Montesquieu, Diderot, and Rousseau, including the origins of Romanticism. These courses are conducted in French.
Prerequisite: FRH 372.

## FRH 441, 442 Nineteenth Cenfury French Literafure

(4 credits each)
FRH 441 is concerned with the flowering of Romanticism and the beginnings of Realism: novelists, dramatists, poets, and essayists, including Chateaubriand, Lamartine, Hugo, Vigny, Musset, Nerval, and Stendhal.
FRH 442 deals with the realistic novel, review of the Parnassian poets and the problem play, and the aesthetics of Naturalism; the relation of literature to the philosophical, political, and social ideas of the time. Primarily a study of Balzac, Flaubert, Zola, the Goncourts, and de Maupassant. These courses are conducted in French.
Prerequisite: FRH 372.

## FRH 451 Twentieth Century French Novel

Developments in the novel since the turn of the century. Primarily a sfudy of Proust,

## ARTS AND SCIENCES

Gide, Mauriac, Malraux, Camus, Sartre, and representative authors of the new school. Conducted in French.
Prerequisite: FRH 372.

## FRH 452 Twentieth Century French Theatre (4 credits)

Drama since the Theatre Libre. Theatrical innovations and reforms of Copeau, Jouvet, Baty, Dullin, and others. Primarily a study of Claudel, Giraudoux, Anouilh, Montherlant, Camus, Sartre, and the recent experiments of lonesco and Beckett. Conducted in

## French.

Prerequisite: FRH 372.
FRH 453 Modern French Poetry
(4 credifs)
Reading and discussion of French poetry from Symbolism to the present. Conducted in French.
Prerequisite: FRH 372.

## FRH 461 Advanced Composition and Conversation

Infensive oral work designed to perfect conversational ability, with emphasis on phonetics and diction. Extensive written work to increase the student's skill in original composition. Analysis of style in selected passages from French authors. Strongly recommended for all students, especially those planning to teach at the elementary level. Required for secondary teaching majors.
Prerequisite: FRH 312.

## FRH 480 Seminar in French Literature

(4 credits)
Study of individual authors, selected themes, or critical problems.
Prerequisites: Major standing in French and permission of the instructor.

## FRH 485 Senior Tutorial Readings

(4 credits)
Readings, lectures, discussions based on departmental reading list for French majors. Required of senior majors, not open to others.
Prerequisites: Major standing in French and permission of the Department.
FRH 490 Independent Reading and Research
(2, 4, or 8 credits)
Directed individual research and reading designed for advanced French majors. May be taken for one or more semesters.
Prerequisite: Permission of the Department.

## German Language and Literature

GRM 101-102 Elementary Reading in German (4 credits each)
Designed to help students acquire a reading knowledge of German. Elements of grammar, extensive reading of graded texts. Admission contingent upon departmental testing. To be followed by GRM 201-202. Not open to prospective majors.

GRM 114-115 First Year German (5 credits each)
Devoted to aural-oral adaptation, the study of fundamental speech patterns, practice in writing, and the reading of graded texts. Not ordinarily open to students who have had two or more years of secondary school preparation. To be followed by GRM 214-215.

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## GRM 201-202 Infermediate Reading in German

(4 credits each)
Continued development of reading skill, extensive readings in cultural, liferary, and scientific texts. Additional reading materials chosen according to class interests.
Prerequisites: GRM 102 or placement by departmental testing. Not open to prospective majors.

## GRM 214-215 Second Year German (5 credits each)

Review of grammar essenfials and more intensive practice in developing speaking and writing skills, combined with reading of literary and cultural texts. Prerequisites: GRM 115 or an appropriate placement examination score.

## GRM 285 Main Currents of German Thought and Literature

(4 credits)
A survey of German culture from the Enlightenment to the present day, as reflected in philosophical, critical, and literary works from the various eras. Lectures and readings in English. Open to German majors as elective only; does not carry credit toward departmental major. Offered in alternate years. Prerequisites: Sophomore standing or permission of the instructor.

## GRM 290 Directed Readings in German (2 or 4 credits)

 A reading course for non-majors interested in research in a particular area. Approximately 50 hours of reading per credit; one conference weekly with the instructor. May be repeated for credit.Prerequisites: GRM 202, or GRM 215, or permission of the Department.

## GRM 311-312 German Composition and (4 credits each) Conversation

Devoted to increasing the student's command of the language and familiarizing him with idiomatic German. Intensive practice in oral and written composition as well as translation. Techniques of textual analysis and exposition are introduced. Conducted primarily in German.
Prerequisites: GRM 215 or an appropriate placement examination score. Especially qualified freshmen may be admitted.

## GRM 351 German Civilization <br> (4 credits)

A survey of civilization and culture in German speaking countries. The historical development will be traced through such topics as social structures, religion, philosophy, economics, and the arts. Conducted in English.
Prerequisites: Sophomore standing or permission of the instructor.

## GRM 365 Applied Linguistics of German

(4 credits)
An introduction to modern linguistic insights with particular reference to their application in the understanding and teaching of the contemporary language; a brief survey of the nature of the linguistic changes underlying the development of modern German. Required for secondary teaching majors. Offered in the Winter Semester. Identical with LIN 365.
Prerequisites: GRM 312 or permission of the instructor.
GRM 371, 372 Infroduction to German (4 credits each)

## Literature

GRM 371 is concerned with textual analysis of different literary genres with emphasis on techniques of literary interpretation. Classwork in German. Usually offered in the Fall Semester. GRM 372 is devoted to analyses and survey of twentieth century

## ARTS AND SCIENCES

German literature, with special emphasis on post-World War II works. Introduction to the use of secondary sources in the study of literature. Usually offered in the Winter Semester.
Prerequisites: GRM 215 or an appropriate placement examination score. Especially qualified freshmen may be admitted.

## GRM 407 German for the Classroom

(4 credits)
Practice in the active use of German as needed for conducting classroom activities, with emphasis on pronunciation, grammar, vocabulary, and conversation. Incorporafion of audio-visual media, film, tape and slides in teaching. Strongly recommended for elementary and secondary teaching majors. Open to liberal arts majors as elective credit only. Offered in the winter semester only.
Prerequisites: GRM 312 or equivalent

## GRM 421, 422 The Age of Goethe and Goethe's Faust

GRM 421 deals with representative works of Goethe (exclusive of Faust), Schiller, and their contemporaries, which exemplify the intellectual and artistic currents of the Enlightenment, Storm and Stress, and Classicism.
GRM 422 is a detailed study of Faust I and II, its position in German literature, and its importance as a masterpiece of world literature. Conducted in German and offered in alternate years.
Prerequisite: GRM 372.

## GRM 431 German Romanficism and Realism

(4 credits)
The literature of Romanticism and Poetic Realism, a study of the origin and development of these movements in the light of the political and philosophic background of the age, with special emphasis on the lyric poetry of Romanticism, the dramas of Kleist, Grillparzer, and Hebbel, and the Novelle of Poetic Realism. Conducted in German.
Prerequisite: GRM 372.

## GRM 434 Naturalism, Impressionism, Expressionism

German literature of the era 1880-1920, with analysis of selected texts from these periods. Conducted in German and offered in alternate years.
Prerequisite: GRM 372.

## GRM 451 Modern Prose Fiction

(4 credits)
A survey of novels and Novellen from World War 1 to the present, stressing developments in these genres since World War II. Conducted in German and offered in alternate years.
Prerequisite: GRM 372.

## GRM 461 Advanced Composition and Composition

(4 credits)

Intensive oral work designed to perfect conversational ability, with emphasis on phonetics and diction. Extensive written work to increase the student's skill in original composition. Analysis of style in selected passages from German authors. Strongly recommended for all students, especially those planning to teach at the elementary level. Required for secondary teaching majors. Offered in the Winter Semester.
Prerequisite: GRM 312.

# GRM 480 Germanistisches Proseminar <br> (4 credits) <br> Intensive investigation of some special aspects of German literature, stressing research and independent study. <br> Prerequisites: Major standing in German and permission of the instructor. 

GRM 490 Independent Reading and Research
(2, 4, or 8 credits)
Directed individual research and reading designed for advanced German majors. May be taken for one or more semesters.
Prerequisite: Permission of the Department.

## Hebrew Language

## HBR 114-115 First Year Hebrew (5 credits each)

Devoted to aural-oral adaptation, the study of fundamental speech patterns, practice in writing, and the reading of graded texts. Not ordinarily open to students who have had two or more years of secondary school preparation.
HBR 214-215 Second-Year Hebrew (5 credits each)
Devoted to aural-oral adaptation. Review of grammar essentials and more intensive practice in developing speaking and writing skills combined with reading of literary and cultural texts.
Prerequisites: HBR 115 or permission of the instructor.

## Hindi-Urdu Language

## HIUR 114-115 First Year Hindi-Urdu (5 credits each)

An introduction to the basic structure of both Hindi and Urdu with an emphasis on both conversation and reading. The course will stress the core vocabulary common to both languages; in addition, both Devanāgari and Persio-Arabic scripts will be used interchangeably.
HIN 214-215 Second Year Hindi
( 5 credits each)
A continuation of HIUR 114-115, with an emphasis on the literary and spoken language of Hindi.
URD 214-215 Second Year Urdu (5 credits each)
A continuation of HIUR 114-115, with an emphasis on the literary and spoken language of Urdu.

HIN 311-312 $\begin{aligned} & \text { Hindi Composition and } \\ & \text { Conversation }\end{aligned}$
Devoted to increasing the student's command of the language and familiarizing him with idiomatic Hindi. Intensive practice in oral and written composition as well as translation. Techniques of textual analysis and exposition are introduced. Conducted primarily in Hindi.
Prerequisites: HIU 215 or permission of the instructor.
URD 311-312 Urdu Composition and (4 credits each) Conversation
Devoted to increasing the student's command of the language and familiarizing him with idiomatic Urdu. Intensive practice in oral and written composition as well as

## ARTS AND SCIENCES

translation. Techniques of textual analysis and exposition are introduced. Conducted primarily in Urdu.
Prerequisites: Urdu $\mathbf{2 1 5}$ or permission of the instructor.

## HIU 490 Independent Reading and (2, 4, or 8 credits) Research

Directed individual research and reading designed for advanced Hindi-Urdu majors. May be taken for one or more semesters.
Prerequisite: Permission of the department.

## Ifalian Language

IT 114-115 First-Year Italian (5 credits each)
The study of fundamental patterns, written exercises, and the reading of graded texts. Extensive oral practice.

## IT 214-215 Second-Year Italian (5 credits each)

Conversation and composition based on contemporary readings in Italian literature, including cultural material.
Prerequisites: Italian 114-115 or its equivalent.

## Porfuguese Language

POR 114-115 First Year Portuguese (5 credits each)
Devoted to intensive aural-oral adaptation, the study of fundamental speech patterns, practice in writing, and the reading of graded texts. Brazilian Portuguese is emphasized. Not ordinarily open to students who have had two or more years of secondary school preparation. Admission contingent upon departmental testing and interview. To be followed by POR 214.

POR 214 Intermediate Portuguese (5 credits)
Devoted to aural-oral adaptation. More intensive practice in developing speaking and writing skills combined with reading of literary and cultural texts. Brazilian Portuguese is emphasized.
Prerequisites: POR 114-115, or departmental testing and interview.
POR 390 Directed Readings in Portuguese (2 or 4 credits) A reading course for students interested in research in a particular Portugueselanguage area. Especially suited to Area Studies majors. Bibliography to be determined by students and instructor. Discussions in Portuguese or English. Paper optional. May be repeated for credit.
Prerequisites: POR 214 or permission of the department.

## Russian Language and Literature

RUS 101-102 Elementary Reading in Russian (4 credits each)
Designed to help students acquire a reading knowledge of Russian. Elements of grammar, extensive reading of graded texts. Recommended for students in Area Studies. Students planning to major should take Russian 114-115. Offered every year. To be followed by Russian 201-202.

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## RUS 114-115 First Year Russian <br> ( 5 credits each)

Devoted to aural-oral adaptation, the study of fundamental speech patterns, practice in writing, and the reading of graded Russian texts. Not ordinarily open to students who have had two or more years of secondary school preparation.

RUS 201-202 \begin{tabular}{l}

| Infermediate Reading in |
| :--- |
| Russian |$\quad$ (4 credits each)

\end{tabular}

Continued development of reading skill. Materials in cultural, literary, or scientific areas, chosen according to class interests. Recommended for students in Area Studies. Students planning to major in Russian should take 214-215. Offered every year. Prerequisites: RUS 102 or 115 , or equivalent.

## RUS 214-215 Second Year Russian

( 5 credits each)
Review of grammar essentials and more intensive practice in developing speaking and writing skills combined with reading of literary and cultural texts.
Prerequisites: RUS 115 or evidence of proficiency and permission of the Department.

## RUS 285 Masterpieces of Nineteenth Century (4 credits) Russian Literature in English Translation

A sfudy of the writings of Pushkin, Lermontov, Gogol, Turgenev, Dostoevsky and Tolstoy as a reflection of cultural developments in Russia in the nineteenth century. Lectures and readings in English. Open to Russian majors as elective only; does not carry credit toward departmental major.
Prerequisites: Sophomore standing or permission of the instructor.

## RUS 286 Masterpieces of Modern Russian Literature in English Translation

(4 credits)

A study of the major literary movements in Russian in the post-revolutionary period from the Symbolists to Solzhenitsyn. Lectures and readings in English. Open to Russian majors as elective only; does not carry credit toward departmental major. Prerequisites: Sophomore standing or permission of the instructor.

## RUS 287 Tolstoy in English Translation

An examination of the major novels and shorter works, including their religious, philosophical and psychological significance. Lectures and readings in English. Open to Russian majors as elective only; does not carry credit toward departmental major. Prerequisites: Sophomore standing or permission of the instructor.

## RUS 288 Dostoevsky in English Translation <br> ( 2 credits)

An examination of the major novels, short novels and journalistic writings with regard to their literary, philosophical, religious and psychological content. Lectures and readings in English. Open to Russian majors as elective only; does not carry credit toward departmental major.
Prerequisites: Sophomore standing or permission of the instructor.

## RUS 290 Directed Readings in Russian (2 or 4 credits)

A reading course for non-majors interested in research in a particular area. Approximately 50 hours of reading per credit; one conference weekly with the instructor. May be repeated for credit.
Prerequisites: RUS 215 or permission of the Department.

## RUS 311-312 Russian Composition and Conversation

Devoted to increasing the student's command of the language and familiarizing him with idiomatic Russian. Intensive practice in oral and written composition as well as

## ARTS AND SCIENCES

translation. Techniques of textual analysis and exposition. Conducted primarily in Russian.
Prerequisites: RUS 215 or evidence of proficiency and permission of the Department. Especially qualified freshmen may be admitted.

## RUS 365 Applied Linguistics of Russian

(4 credits)
An introduction to modern linguistic insights with particular reference to their application in the understanding and teaching of the contemporary language; a briof survey of the nature of the linguistic changes underlying the development of modern Russian. Required for secondary teaching majors. Offered in the Winter Semester. Identical with LIN 365.
Prerequisites: RUS 312 or permission of the instructor.
RUS 371, 372 Introduction to Russian
(4 credits each)

## Literature

The study of masterpieces of Russian literature. Classwork and oral and written reports in Russian.
Prerequisites: RUS $\mathbf{2 1 5}$ or evidence of proficiency and permission of the Department. Especially qualified freshmen may be admitted.

## RUS 400 Special Topics in Language <br> (4 credits)

Special problems or topics selected by the instructor. May be repeated for credit. Offered in alternate years.
Prerequisites: RUS 372, or RUS 462, or permission of the Department.

## RUS 426 Russian Poetry of the First Half of the Nineteenth Century

(4 credits)
Major Russian poets from the first part of the nineteenth century: Zhukovsky, Batyushkov, Delvig, Baratynsky, and Yazykov, with emphasis on Pushkin. Conducted in Russian and offered in alternate years.
Prerequisite: RUS 372.

## RUS 427 Russian Poetry of the Second Half of the Nineteenth Century

(4 credits)
Poetry of the second part of the nineteenth century: Tyutchev, Fet, A. Tolstoy, and Nekrasov, with special emphasis on Lermontov and his influence. Conducted in Russian and offered in alternate years.
Prerequisite: RUS 372.

## RUS 434 Russian Realism

(4 credifs)
Russian realistic novel from 1840 to 1880. Selections from the major novelists. Conducted in Russian and offered in alternate years.
Prerequisite: RUS 372.

## RUS 435 Chekhov and His Time

(4 credits)
Devoted mainly to Chekhov's prose but includes other prose writers of the time such as Garshin, Korolenko, Gorky. Conducted in Russian and offered in alternate years. Prerequisite: RUS 372.
RUS 441 Tolsfoy
(4 credits)
Study of Tolstoy's literary and moral development as reflected in his major works. Conducted in Russian and offered in alternate years.
Prerequisite: RUS 372.

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## RUS 442 Dostoevsky

(4 credits)
Study of Dostoevsky's evolution as a writer and thinker. Conducted in Russian and offered in alternate years.
Prerequisite: RUS 372.

## RUS 451 Modern Russian Prose (4 credits)

Selected prose works from the beginning of the twentieth century. Included are works of pre-revolutionary, Soviet, and emigré authors. Conducted in Russian and offered in alternate years.
Prerequisite: RUS 372.
RUS 461-462 Advanced Composition and (4 credits each) Conversation
Intensive oral work designed to perfect conversational ability with emphasis on phonetics and diction. Extensive written work along with analysis of style in selected passages from Russian authors. RUS 461 is recommended for elementary teaching majors and is required for secondary teaching majors. RUS 461-462 is required for Russian majors in liberal arts. Offered in the Fall and Winter Semesters.
Prerequisite: RUS 312.
RUS 480 Seminar in Russian Literature (4 credits)
Intensive investigation of some aspect of Russian literature. Offered in alternate years. Prerequisites: Major standing in Russian and permission of the instructor.

## RUS 490 Independent Reading and Research

(2, 4, or 8 credits)
Directed individual research and reading designed for advanced Russian majors. May be taken for one or more semesters.
Prerequisite: Permission of the Department.

## Spanish Language and Literature

## SPN 101-102 Elementary Reading in Spanish (4 credits each)

 Designed to help students acquire a reading knowledge of Spanish. Elements of grammar, extensive reading of graded texts. Admission contingent upon departmental testing. To be followed by SPN 201-202. Not open to prospective majors.SPN 114-115 First Year Spanish
(5 credits each)
Devoted to aural-oral adaptation, the study of fundamental speech patterns, practice in writing, and the reading of graded texts. Not ordinarily open to students who have had two or more years of secondary school preparation. Admission contingent upon departmental testing. To be followed by SPN 214-215.

## SPN 201-202 Intermediate Reading in Spanish

(4 credits each)
Continued development of reading skill, extensive readings in cultural and literary texts, and unedited materials of various kinds.
Prerequisites: SPN 102 or placement by departmental testing. Not open to prospective majors.

## SPN 214-215 Second Year Spanish

( 5 credits each)
Devoted to aural-oral adaptation. Review of grammar essentials and more intensive practice in developing speaking and writing skills combined with reading of literary and cultural texts.
Prerequisites: SPN 115 or an appropriate score on a placement examination.

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SPN 285, 286 Survey of Spanish and
(4 credits each)

## Latin American Literature

SPN 285 will be a survey of Spanish literature from El Cid through the twentieth century.
SPN 286 will include major works from Latin America. Lectures and readings in English. Either course may be taken independently of the other. Open to Spanish majors as elective only; does not carry credit toward departmental major. Prerequisites: Sophomore standing or permission of the Instructor.

## SPN 290 Directed Readings in Spanish (2 or 4 credits)

A reading course for non-majors interested in research in a particular area. Approximately 50 hours of reading per credit; one conference weekly with the instructor. May be repeated for credit.
Prerequisites: SPN 202 or SPN 215, or permission of the Department.

## SPN 300 Composition and Conversation <br> (4 credits)

For overseas study program only. At third or fourth year level depending on student preparation.
Prerequisites: SPN 215 or permission of the Instructor.

## SPN 311-312 Spanish Composition and <br> (4 credits each) Conversation <br> Devoted to increasing the student's command of the language and familiarizing him with idiomatic Spanish. Intensive practice in oral and written composition as well as grammar and translation. Techniques of textual analysis and exposition are introduced. Conducted primarily in Spanish. <br> Prerequisites: SPN 215 or an appropriate score on a placement examination. Especially qualified freshmen may be admitted.

## SPN 350 Spanish Theatre

(2 or 4 credits)
The study and presentation of Spanish plays with intensive drill in pronunciation and intonation. The theatre as a literary genre and as a living experience. May be repeated for credit. However, only 4 credits will count toward satisfaction of major requirements.
Prerequisite: Permission of the Instructor.

## SPN 351 Spanish Civilization

(4 credits)
An historical approach to Spanish culture and civilization, with particular emphasis given to geography, social structure, philosophical thought, music, art, and architecture.
Prerequisites: Sophomore standing or permission of the Instructor.

## SPN 365 Applied Linguistics of Spanish

An introduction to modern linguistic insights with particular reference to their application in the understanding and teaching of the contemporary language; a brief survey of the nature of the linguistic changes underlying the development of modern Spanish. Required for secondary teaching majors. May not be taken to fulfill requirements for the liberal arts major, except by majors with a concentration in linguistics. Identical with LIN 365.
Prerequisites: SPN 312 or permission of the Instructor.
SPN 371, 372 Introduction to Spanish (4 credits each) Literature
The study of masterpieces of Spanish literature. Classwork and oral and written

## ARTS AND SCIENCES

reports in Spanish.
Prerequisites: SPN 215 or an appropriate score on a placement examination. Especially qualified freshmen may be admitted.

SPN 401 Literature of the Spanish Middle Ages
(4 credits)
Masterworks of the period.
Prerequisite: SPN 372.
SPN 412 The Quixote (4 credits)
Detailed sfudy of Cervantes' masterwork.
Prerequisite: SPN 372.
SPN 424 The Golden Age
(4 credifs)
Masterpieces of Spanish literature of the period.
Prerequisite: SPN 372.
SPN 433 Spanish Literature of the Eighłeenth
(4 credits)

Masterworks of the period in peninsular literature.
Prerequisite: SPN 372.
SPN 461 Advanced Composition and
(4 credits)

## Conversation

Intensive oral work designed to perfect conversational ability, with emphasis on phonetics and diction. Extensive written work to increase the student's skill in original composition. Analysis of style in selected passages from Spanish authors. Strongly recommended for those planning to teach at the elementary level. Required for secondary teaching majors.
Prerequisite: SPN 312.

## SPN 462 Spanish American Literałure I

Masterworks of Spanish American literature through the nineteenth century. Prerequisite: SPN 372.

SPN 463 Spanish American Literature II (4 credits)
Masterworks of twentieth century Spanish American literature.
Prerequisite: SPN 372.
SPN 472 Twentieth Cenłury Spanish Literafure
Masterworks of the period in peninsular literature.
Prerequisite: SPN 372.
SPN 476 Lyric Poetry
(4 credits)
Masterworks of Spanish lyric poetry. A detailed study of one poet will occupy the lafter part of the course.
Prerequisite: SPN 372.

## SPN 480 Seminar in Spanish Literature

Study of individual authors, selected themes, or critical problems.
Prerequisites: Major standing in Spanish and permission of the Instructor.
SPN 485 Senior Tutorial Readings
(4 credits)
Readings, lectures, discussions based on departmental reading list for Spanish majors.
Required of senior students, not open to others.
Prerequisites: Major standing in Spanish and permisson of the Depariment.

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## SPN 490 Independent Reading and Research

(2, 4, or 8 credits)
Directed individual research and reading designed for advanced Spanish majors. May be taken for one or more semesters. Prerequisite: Permission of the Department.

SPN 499 Honors Course in Spanish
(4 credits)
An introduction to scholarly techniques as applied to a work, an author, or a genre. Admission by permission of the Department.

## Swahili Language

SWA 114-115 First Year Swahili (5 credits each)
An introduction to the basic structure of Swahili with an emphasis on both conversation and reading.

## SWA 214-215 Second Year Swahili (5 credits each)

A continuation of SWA 114-115 with increasing emphasis on reading and composition. Prerequisites: SWA 114-115 or permission of the Instructor.

SWA 270 Readings in Swahili (4 or 8 credits)
Study of selected texts pertaining to different aspects of Swahili cultural life. May be conducted as a tutorial and may be repeated for credit.
Prerequisites: SWA 215 or permission of the Instructor.

## Modern Language

## ML 191-192 Tutorial in Foreign Language (4 credits each)

Instruction in the elements of a spoken or written foreign language such as Arabic, Bengali, Czech, Japanese, Sanskrit, Hausa, etc. for which no regular course sequence exists here.
May be repeated for credit in a different language each time.

## ML 497 Apprentice College Teaching <br> (2 or 4 credits)

Supervised participation in the teaching of an undergraduate course in language or literature, together with discussion of teaching objectives and methods. Open to wellqualified upperclassmen capable of assuming limited classroom responsibility who have obtained the consent of a faculty member in this Department. Does not satisfy major requirements in modern languages nor professional requirements in education. Offered in the Fall Semester.
Prerequisite: Permission of the Department.
MLT 290 Foreign Language Readings in (2 or 4 credits) English Translation
A tutorial for students desiring to read materials by foreign writers in the student's own field of interest. Topic and bibliography to be determined by the student and his instructor. Materials and discussions in English. May be repeated for credit. Prerequisite: Permission of the Department.

## ARTS AND SCIENCES

## DEPARTMENT OF MUSIC

| Associate Professors: | David DiChiera, Chairman Raynold Allvin <br> David Daniels <br> Robert Facko |
| :---: | :---: |
| Assistant Professors: | Marvin Holladay Lyle Nordstrom Clifford Pfeil |
| Special Instructors: | Richard Conrad John Dovaras Alice Engram |
| Visiting Lecturer: | Flavio Varani |
| Applied Music Instructors: | Paul Allen, (trumpet) |
|  | Arthur Bachmann (cello) |
|  | Tom Bacon, (French horn) |
|  | Douglas Cornelsen, (clarinet) Robert Cowart (oboe) |
|  | Joe Fava (guitar) |
|  | LeRoy Fenstermacher (viola) |
|  | Norman Fickett, (percussion) |
|  | Derek Francis, (violin) <br> Robert Gladstone (string bass) |
|  | Wesley Jacobs, (tuba) |
|  | Jack Kripl, (saxophone) |
|  | Kent McDonald (piano/organ) |
|  | Ervin Monroe (flute) |
|  | Emilia Cundari (voice) |
|  | Frank Preuss (violin) |
|  | Vivian Scott, (piano) |
|  | Evelyn Sun (piano) |
|  | Raymond Turner, (trombone) |

The Department of Music is committed to the continuous evolution and expansion of the entire music program and to the active participation of students in this evolution. The music department's New Curriculum - designed by faculty and students together is unique in many respects. For this reason, it is absolutely necessary to read the MUSIC HANDBOOK (available from the music office, room 312 PA ) and to consult with a departmental advisor before beginning a music degree program. Note that all new

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and transfer students are expected to audition during the first week of classes in order to qualify for their chosen performing medium.

## The Certificate System

The Department of Music uses a certificate system designed to enable majors to devise their own means of study, and to a considerable extent, their own course of study. Under this system, levels of achievement are required, but, with a few exceptions, courses and course sequences in the Department are not. Students may work toward the levels of achievement in a variety of ways: by taking advantage of the courses offered, or by independent study, or by combining course study with independent study.

To help students plan their course of study and determine their means of study, the music department publishes samples of the certificate examinations. It is the eventual passing of these certificate examinations, rather than the following of a particular sequence of departmental courses, that is required for any music major. The examinations also serve diagnostically: if students do not achieve the required level of proficiency, the results identify the areas they need to study before trying again.

For general education requirements for graduation see pp. 90-107.

## Programs of Study

There are three degree programs now available for music majors:

1. Bachelor of Arts in Music: This degree involves 48 credits of music, and the successful completion of five certificates: Basic Materials of Music, Theory, Ear Training, Music History and Literature, and Performance.
2. Bachelor of Science in Music: A more intensive pre-professional training. 72 credits of music, and the successful completion of nine certificates: the five required for the B.A. degree plus Performance Minor, Keyboard Proficiency, and two elective certificates of the student's choice, such as Advanced Theory, Composition, Advanced Music History, Instrumental Studies, Choral Studies, Church Music, Pedagogy, and Performance Honors. With the approval of the Department, students may design highly individualized certificates to suit their own personal interests and goals.

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3. Bachelor of Science in Music Education: For the prospective public school teacher. This program involves elementary and secondary teaching certification by the State of Michigan. 60 credits of music (plus practice teaching and the education courses and teaching minor required by the state) and the successful completion of nine certificates: the five required for the B.A. degree plus Performance Minor, Keyboard Proficiency, Music Education, and either Instrumental Studies or Choral Studies.

All the above mentioned certificates are described in detail in the Music Handbook.

## Symbolic Systems Requirement

The nature of the music profession makes proficiency in one or more foreign languages extremely useful. Therefore, music majors must complete a fourth-semester foreign language course, or demonstrate equivalent proficiency. German is particularly recommended for those interested in music theory or music history; Italian is recommended for voice students. There are two exceptions to this requirement:

1. Students interested in a field where computer programming may be useful (such as theory-composition) may satisfy this requirement with two semesters of computer programming and two semesters (or equivalent proficiency) of foreign language.
2. For students in Music Education this requirement is reduced by half, and may be satisfied in any of the following ways:
a. Two semesters of a foreign language, or equivalent proficiency.
b. Two four-credit courses in computer programming.

Courses taken to satisfy this departmental requirement may also count toward the General Education Requirement and/or the Secondary Teaching Minor.

MUS 100 Introduction to Music (4 credits)
An introduction to the techniques of listening to great music, and a study of its elements, forms, and styles. Begins at the level of the student lacking previous musical experience. Note: Prospective music majors should consult with the Department of Music before registering for this course.

MUS 101 University Chorus (1 or 2 credits)
MUS 102 Oakland Singers (2 credits)

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MUS 103 Collegium Musicum (1 or 2 credits)
Performance of Renaissance and Baroque chamber music. Present groups include the Renaissance Wind Band (recorders, krummhorns, brass, and percussion) and various small ensembles combining voices and instruments.
MUS 104 University Concert Band (1 or 2 credits)
MUS 105 Opera Workshop (1,2 or 3 credits)
MUS 106 University Orchestra (1 or 2 credits)
MUS 111 Beginning Musicianship (4 credits)
An introduction to the techniques of reading and writing music, notation, pitch, and rhythmic organization, elementary sight singing, dictation, and keyboard familiarity. An elective course for non-music majors.
MUS 120 Ear Training (2 credits)
MUS 149 Music as an Art and as an Elementary School Subject
( 5 credits)
An introduction to the techniques of listening to music and of teaching music in the elementary school. Begins at a level for the student lacking previous musical experience. Substitutes for UC 049 for general elementary education majors.

| *MUS | 160 | Voice | (2 credits) |
| :--- | :--- | :--- | :--- |
| *MUS | 161 | Piano | (2 credits) |
| *MUS | 162 | Organ | (2 credits) |
| *MUS | 163 | Harpsichord | (2 credits) |
| *MUS 164 | Violin | (2 credits) |  |
| *MUS | 165 | Viola | (2 credits) |
| *MUS 166 | Violoncello | (2 credits) |  |
| *MUS 167 | String Bass | (2 credits) |  |
| *MUS 168 | Flute | (2 credits) |  |
| *MUS 169 | Oboe | (2 credits) |  |
| *MUS 170 | Clarinet | (2 credits) |  |
| *MUS 171 | Bassoon | (2 credits) |  |
| *MUS 172 | French Horn | (2 credits) |  |
| *MUS 173 | Trumpet | (2 credits) |  |
| *MUS 174 | Trombone | (2 credits) |  |
| *MUS | 175 | Tuba | (2 credits) |

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| *MUS | 176 | Timpani | (2 credits) |
| :---: | :---: | :---: | :---: |
| *MUS | 177 | Percussion | (2 credits) |
| *MUS | 178 | Harp | (2 credits) |
| *MUS | 179 | Guitar (Classical) | (2 credits) |
| *MUS | 180 | Renaissance Winds | (2 credits) |
| Instruments include krummhorns, recorders, etc. |  |  |  |
| *MUS | 181 | Viola da Gamba | (2 credits) |
| *MUS | 182 | Lute | (2 credits) |
| *MUS | 183 | Recorder | (2 credits) |
| *MUS | 184 | Saxophone | (2 credits) |

*Private lessons presently offered to music majors and to other music students at the discretion of the Department.

## MUS 210 Introduction to the Materials of Music (5 credits)

The development of perceptive listening techniques and an awareness of musical styles. Solution of musical problems in written work and laboratory sessions. Beginning ear training and the rudiments of tonal harmony.

MUS 295 Independent Study (2, 4, 6, 8, 10, 12 credits)
Prerequisite: Permission of the Department.

## MUS 310 Harmony

(4 credits)
The harmonic practice of the eighteenth and early nineteenth centuries. Composition and analysis in this style.
Prerequisites: MUS 210 or permission of the Instructor.

## MUS 314 Form in Tonal Music

(4 credits)
Tonality as a force in musical structure; the forms of the seventeenth through nineteenth centuries. Analysis of many works and composition using tonal idioms. Prerequisites: MUS 210 or permission of the Instructor.

MUS 315 Tonal Counterpoint
(4 credits)
The contrapuntal style of the eighteenth century; composition and analysis. Prerequisites: MUS $\mathbf{2 1 0}$ or permission of the Instructor.

MUS 321 Music History and Literature to 1750 (4 credits) History and literature of music through the Baroque period. Designed primarily for music majors. Offered each Fall Semester.
Prerequisites: MUS 210 or permission of the Instructor.

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## MUS 331 Opera and Music Drama

(4 credits)
A study of music drama from the lyric drama of the ancient Greeks to the present. Suggested as an elective for non-music majors.
Prerequisites: MUS 210 or permission of the Instructor.
MUS 332 Symphonic Music (4 credits)
A study of symphonic music from the pre-classic compositions of C.P.E. Bach to the present. Suggested as an elective for non-music majors.
Prerequisites: MUS 210 or permission of the Instructor.

## MUS 333 Choral Music (4 credits)

 A study of choral music from the beginnings of choral polyphony in the early fifteenth century to the present. Suggested as an elective for non-music majors as well as for music majors.Prerequisites: MUS 210 or permission of the Instructor.
MUS 342 Music in the Baroque Era
A study of significant forms, composers, and nationalistic trends in the Baroque era. Suggested as an elective for non-music majors.
Prerequisites: MUS 210 or permission of the Instructor.

## MUS 345 Twentieth Century Music

A study of significant styles and composers from Debussy to the present. Suggested as an elective for non-music majors.
Prerequisites: MUS 210 or permission of the Instructor.

## MUS 346 The Music of Black Americans

(4 credits)
Contributions of the black race to the development of music in the United States. Investigation of the elements of African musical style in Afro-American music. What is black musical idiom? Folksong-secular and sacred. Formal composition. Popular forms of music. Recommended as an elective for non-music majors as well as music majors.

## MUS 360 Class Voice

(2 credits)
Elementary aspects of singing for non-voice majors, including diction, breath control, projection, and repertoire.


## MUS 371-372-373-374 Keyboard Technique (2 credits each)

Designed to develop the basic keyboard facility essential to the equipment of any musician and to acquaint him with keyboard literature. Music majors planning to register for this course should indicate such intention to the Department of Music at the time of their first registration in the University. Normally offered each semester. Prerequisite: Permission of the Instructor.

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MUS 380 Instrumental Methods (Strings)
( 2 credits)
Designed to provide the teacher with basic facilities and pedagogical techniques for the string family.

## MUS 381 Instrumental Methods (Woodwinds) (2 credits)

Designed to provide the teacher with basic facilities and pedagogical techniques for the woodwind family.

## MUS 382 Instrumental Methods (Brass and Percussion)

Designed to provide the teacher with basic facilities and pedagogical techniques for the brasses and percussion.
MUS 401 Teaching Music in Elementary Schools (2 credits) The organization and content of the general vocal music class in the kindergarten and the first six grades of elementary school. The development of musicality in the child through singing, playing instruments, listening to music, and participating in rhythmic activities. Special emphasis on teaching music reading and ear training to young children.
Prerequisites: MUS 210 and a 300 -level theory course, or permission of the Instructor.

## MUS 402 Teaching Music in Secondary Schools (2 credits)

The content and organization of the complete secondary school curriculum and the role music assumes in it, including place and function of performing groups, general music, music appreciation, music theory, and musical production. Coordination of the music program with other subject areas such as English, social studies, drama. Selection of appropriate repertoire and development of the school music library. Prerequisites: MUS 210 and a 300 -level theory course, or permission of the Instructor.

## MUS 403 Conducting Choral Music in Secondary Schools (2 credits)

The organization and conducting of choral music in junior and senior high schools. The development of the adolescent and young adult voice. Problems of selection of repertoire. The selected choir, the mixed chorus, glee clubs, madrigal groups, and other small vocal ensembles. Historical style in choral singing, choral festivals and contests.
Prerequisites: MUS 210 and a 300-level theory course, or permission of the Instructor.

## MUS 404 Conducting Instrumental Music in Secondary Schools <br> ( 2 credits)

The organization and conducting of instrumental music in junior and senior high schools. Repertoire, materials, and techniques of secondary school orchestras, bands, stage bands, and ensembles. Pedagogical principles appropriate to individual or group instruction.
Prerequisites: MUS 210 and a 300 -level theory course, or permission of the Instructor.

## MUS 410 Advanced Harmony

(4 credits)
Harmonic practice of the late nineteenth and early twentieth centuries; composition and analysis in this style.
Prerequisites: Either MUS 310, 314, or 315.

## MUS 411 Orchestration

(4 credits)
A study of the orchestral instruments and their use in various combinations, including full orchestra and band.
Correlative courses: MUS 380, 381, 382, 404, 412.
Prerequisites: Either MUS 310, 314, or 315.

## MUS 412 Twentieth Century Techniques

(4 credits)
Compositional practices in the fwentieth century; composition and analysis.
Prerequisites: Either MUS 310, 314, or 315.

## MUS 415 Modal Counterpoint

(4 credits)
The contrapuntal style of the sixteenth century. Analysis and composition in this style. Offered in alternate years.
Prerequisites: Either MUS 310, 314, or 315.

## MUS 420 Performance Seminar

(2 credits)
The performance of specific works as it is affecfed by theoretical analysis and stylistic-historical considerations.
Prerequisite: Compietion of the theory certificate; MUS 321 and 322 recommended.

## MUS 430 Music of the Religious Service

(4 credits)
The philosophical and psychological bases of music in religious services. Service planning and arranging, traditional and experimental, using various media of sound production and multiple sensory methods. The effect of music on sacred texts.

## MUS 441-442 Music Pedagogy

(4 credits each)
Principles of music instruction for the studio teacher. The first semester will be devoted to a survey of the field and to observation. The second semester will be devoted to supervised teaching.

## MUS 490 Introduction to Music Bibliography (4 credits)

A course designed primarily for the music history and literature major. A rigorous and systematic introduction to basic research materials and methodology in musicology. Prerequisites: MUS 321, 322, and a 400 -level theory course.

## MUS 491 Directed Research in Music Hisfory <br> (4 credits)

A program of directed individual reading and research designed for advanced music history majors.
Prerequisites: MUS 321, 322, and a 400 -level theory course.

## MUS 492-493 Composition (4 credits each)

Private lessons in composition and composition seminar dealing with the materials, techniques, and philosophies of contemporary music. May be repeated for credit. Prerequisites: MUS 412 or permission of the Instructor.
MUS 494 Directed Research in Music Education (2 or 4 credits) A program of directed individual reading and research in technology of, innovation in, and psychology of music instruction.
Prerequisites: Two courses from the series MUS 401, MUS 402, MUS 403, and MUS 404, or permission of the Instructor.
MUS 495 Independent Study (2, 4, 6, 8, 10, or 12 credits)
Prerequisite: Permission of the Department.
MUS 497 Apprentice College Teaching (2 credits)
Supervised participation in the teaching of an under-graduate course in music, together with discussion of teaching methods and objectives.
Prerequisite: Permission of Department.

## ARTS AND SCIENCES

# DEPARTMENT OF PHILOSOPHY 

Professor:<br>Associate Professors:<br>Assistant Professor:

Instructors:

## Adjunct Faculty

 Professor:Richard J. Burke, Chairman

Richard W. Brooks
Alfred Lessing (On leave Winter, 1973)
John Immerwahr
Rosalyn S. Sherman-Lessing
(On leave Winter, 1973)
Jack A. Cumbee
Julian Weitzenfeld (On leave Winter, 1973)

Charles E. Morton

Philosophy is one of the oldest, often one of the least understood of the liberal arts. The philosopher is interested in all aspects of human life, searching for the greatest possible clarity concerning the most fundamental questions. There is no one kind of philosophy; there are many kinds, each with its own value. Philosophy has always served two functions: the first is speculative, the attempt to formulate illuminating generalizations about science, art, religion, nature, society, and any other important topic; the second is critical, the unsparing examination of its own generalizations and those of others to uncover unfounded assumptions, faulty thinking, hidden implications, and inconsistencies. The study of philosophy is designed to encourage a spirit of curiosity, a sensitivity toward the uses of words, a sense of objective assessment toward oneself as well as others. Competence in philosophy is solid training for advanced study in such fields as law, government, and public administration, as well as the ministry and teaching.

The Department of Philosophy offers programs of study leading to the degree of Bachelor of Arts with liberal arts major in philosophy, modified major, major in philosophy with concentration in area studies, and major in philosophy with concentration in linguistics. Majors in these programs may complete their general education requirement through courses chosen from departmental offerings, from University courses, or in the programs of Allport College, Charter College, or New College.

The Department of Philosophy accepts all options open to students for satisfying the College symbolic systems requirement.

## Requirements for the Liberal Arts Major in Philosophy

Nine departmental courses ( 36 credits) are required, including PHL 101. The Department also offers a modified major in phil-

## ARTS AND SCIENCES

osophy, modelled on the concentrations described below but tailored to the interests of the individual student. Such a modified major must include at least 24 credits in philosophy and will normally supplement these with at least 20 credits from one or more other departments, chosen to form a coherent program with the philosophy courses taken. This program must have the support of one member of the Department of Philosophy, who will serve as adviser; and it must be approved by the chairman, normally by the end of junior year. Formal admission to major standing requires the satisfactory completion of at least one philosophy course at the 200 level.

## Departmental Course Prerequisites

All 100-level courses have no prerequisites; 200-level courses require sophomore standing, or one previous course in philosophy; 300 -level courses require PHL 101, unless another course is indicated in the course description. Prerequisites may always be waived by permission of the instructor.

## Departmental Honors

Students who think they might qualify for departmental honors should submit an example of their philosophical writing to the chairman early in the semester before they expect to graduate. This should normally be a substantial paper written in PHL 395, but two or three papers written in other courses will be acceptable. If this work is judged to be of sufficiently high quality, it will be read by the rest of the Department, and a conference to discuss it with the student will be arranged. Departmental honors are thus based upon written and oral achievement in philosophy, as well as general performance in courses.

## Requirements for the Major in Philosophy with Concentration in Area Studies

(East Asian Studies or South Asian Studies)
Six departmental courses ( 24 credits) are required, including PHL 101, and PHL 351 (for East Asian Studies) or PHL 352 (for South Asian Studies). For requirements in area studies, see pp. 266-274.

## Requirements for the Major in Philosophy with Concentration in Linguistics

Six departmental courses ( 24 credits) are required, including PHL 101, PHL 370, and PHL 375. For requirements in linguistics, see p. 179.

## PHL 101 Introduction to Philosophical Thinking (4 credits)

Fundamental skills and questions in philosophy, including: how to read and write philosophy; what an argument is, and how to assess one; practice in clarifying concepts, such as absolute and relative, subjective and objective; similaritios or differences between philosophy and other activities, such as science, religion, psychology, debating, and bull sessions.

## PHL 102 Introduction to Logic

(4 credits)
Study of the relationship between conclusions and statements offered in support of them. Will include some analysis of deductive arguments using some of the apparatus of modern symbolic logic, and may include the study of other kinds of arguments (e.g., analogical, inductive, practical) or of uses of language. Offered at least once each year.

## PHL 103 Introduction to Ethics

(4 credits)
Systematic reading and discussion of major ethical analyses of the distinction between right and wrong, good and evil. The appeals to custom, theology, happiness, reason, and human nature will all be examined as offering viable criteria for judgments on contemporary issues of moral concern. Offered every year.

PHL 204, 205, 206, 207 History of Western Philosophy (4 credits each)
The development of systematic philosophical thought in the Western world from its beginnings in the Mediterranean region to the present, with extensive readings in the works of major philosophers. The four courses are:
PHL 204: Classical Greek Philosophy (beginnings to Aristotle); Identical with CLS 204.
PHL 205: Hellenistic and Medieval Philosophy (Stoics to the Renaissance);
PHL 206: Early Modern Philosophy (Galileo to Kant);
PHL 207: Recent Philosophy (Hegel to the present).
Each course may be taken separately, although together they present a continuous development. Offered in sequence, so that each course is offered every other year.

## PHL 219 Aesthetics

(4 credits)
Systematic examination of the nature of aesthetic experience and aesthetic judgment in the appreciation of both nature and art. Critical analysis of major theories, old and new, of the creation and structure of works of art, the psychology of aesthetic perception, and the logic and semantics of aesthetic judgment. Offered every other year.

## PHL 221 Theories of Justice, Power, and Freedom

(4 credits)
The meanings of central concepts in political philosophy, fogether with several closely related concepts such as those of law, authority, and the like, are examined and analyzed through intensive readings in classic writings of political philosophers and through study of especially crucial problems. Offered every other year.

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## PHL 250 Philosophies and Religions of Asia

(4 credits)
A study of the major religions of India, China, and Japan with emphasis on their philosophical significance. The course will cover Hinduism, Jainism, Confucianism, Taoism, and Buddhism (with special reference to Ch'an or Zen), and will deal with both the ancient traditions and some modern developments. Offered every year.

## PHL 260 American Philosophy

(4 credits)
An historical survey of American Philosophy, from its beginnings in New England puritianism to the present day. Emphasis on Peirce, James, and Dewey. Offered every other year.
Prerequisites: Sophomore standing or one previous course in philosophy.

## PHL 317 Recent Theories of Ethics

(4 credits)
Theories of ethics and meta-ethics of the twentieth century, with emphasis on the analysis of ethical statements. Typical problems considered include the possibility of supporting ethical claims, the place of reason, emotion, and persuasion in ethics, and ethical relativism. Offered every other year.
Prerequisite: PHL 101. Recommended: PHL 103.

## PHL 325 Philosophy of Religion

(4 credits)
Examination of arguments for and against the existence of God, the nature of religious language, the relations between religion and philosophy. Offered every other year.
Prerequisite: PHL 101.

## PHL 329 Philosophy of Science

(4 credits)
A study of the philosophical problems arising from critical reflection on the sciences. Typical topics: the structure of scientific explanation, the nature of scientific laws and theories, causality, confirmation. Some notation from formal logic will be used. Offered every other year.
Prerequisites: PHL 101, and at least one course in physical science, either in high school or in college.

## PHL 333 Theories of Knowledge

(4 credits)
Critical examination of knowledge claims and of the types of justification given in their support. Typical topics are scepticism, empiricism, rationalism; the relations between sensations, images, and concepts; meaning and truth; believing and knowing; infuition; limits of knowledge. Offered every other year.
Prerequisite: PHL 101.

## PHL 337 Philosophy of Mind

(4 credits)
An examination of selected topics or works in the philosophical literature about mind. Some of these topics are: the nature of psychological explanation, the relation of mind and body, thinking, motivation, emotions, action, concepts, remembering, images. Offered every other year.
Prerequisite: PHL 101.

## PHL 340 Metaphysics

An intensive study of selected influential aftempts to characterize the basic features of the world. Emphasis on reformulations of metaphysical problems, such as the relation between nature and mind, in the light of modern advances in scientific knowledge and sophistication. Offered every other year.
Prerequisite: PHL 101.

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## PHL 351 Chinese Philosophy

(4 credits)
Systematic study of the rise and development of Chinese philosophy, with emphasis on the classical (Chou) period. Confucianism, Taoism, Mohism, Legalism, the "Hundred Schools." The impact of Buddhism on Chinese philosophical thinking will be examined with special reference to the growth of $\mathrm{Ch}^{\prime}$ an (Zen) Buddhism. Offered every other year.
Prerequisite: PHL 101. Recommended: PHL 250.

## PHL 352 Indian Philosophy

(4 credits)
An examination of the presuppositions and doctrines of India's major philosophic systems. Both Indian logic and metaphysical speculation will be covered. Realistic, idealistic, pluralistic, dualistic, and monistic systems will be considered, with some reference to contemporary developments. Offered every other year.
Prerequisite: PHL 101. Recommended: PHL 250.
PHL 355 Existentialism
(4 credits)
A study of several different types of existentialist philosophy, ranging from Kierkegaard to Sartre and Heidegger. Some aftention may also be given to phenomenology. Offered every other year.
Prerequisite: PHL 101.

## PHL 357 Confemporary Analytic Philosophy (4 credits)

A study of the main forms of twentieth century analytic philosophy and those philosophers who have had most influence in shaping it. Offered every other year. Prerequisite: PHL 101.

## PHL 365 Topics in Philosophy

A study of one philosophic topic or problem which cuts across the usual divisions of the field. Offered every year. The instructor will announce the topic to be studied in the schedule of classes, and any prerequisites.

## PHL 370 Symbolic Logic

(4 credits)
A study of first-order symbolic logic, emphasizing quantificational theory and possibly including identity theory, set theory, and an introduction to logical metatheory. Should involve some inquiry into the philosophical foundations of logical theory. Offered every year.
Prerequisite: PHL 102 or one course in mathematics.

## PHL 375 Philosophy of Language

(4 credits)
An inquiry into philosophical questions concerning the nature of natural language, with emphasis on the problem of meaning. Some consideration of the status of appeals to language in philosophical argument. Offered every other year.
Prerequisites: PHL 101 or 102 and LIN 176 or 301. Recommended: PHL 357, PHL 370.

## PHL 382 Ancient and Medieval Philosophers <br> (4 credifs)

An intensive study of the works of one major philosopher of the ancient or the medieval period. The specific philosopher to be considered will vary from year to year. May be repeated for credit. Offered every year. Identical with CLS 382.
Prerequisite: PHL 101. Recommended: PHL 204 or 205, depending on the philosopher studied.

PHL 383 Modern Philosophers
(4 credits)
An intensive study of the works of one major philosopher of the period from 1600

## ARTS AND SCIENCES

to the present. The specific philosopher to be considered will vary from year to year. May be repeated for credit. Offered every year.
Prerequisite: PHL 101. Recommended: PHL 206 or 207, depending on the philosopher studied.

## PHL 390 Directed Readings in Philosophy (2 credits)

A tutorial, infended primarily (but not exclusively) for majors, in which a student may study a restricted topic of special interest to him which is not treated in regular courses, or which he wishes to pursue in greater detail. Students should have a clear idea of what they want to study before approaching a faculty member. The Department Chairman will often know best which professor the student should approach on a given topic. Graded "S" or "N." Prerequisite: PHL 101.

PHL 395 Independent Study in Philosophy (4 credits)
Essentially the same as PHL 390, but in addition to reading and consultation with an instructor, the student will be expected to do some writing, normally including a substantial term paper.
Prerequisite: PHL 101.

## ARTS AND SCIENCES

## DEPARTMENT OF PHYSICS

| Professors: | Abraham Liboff, Chairman <br> John M. McKinley <br> Ralph C. Mobley <br> Robert M. Williamson |
| :--- | :--- |
| Associate Professors: | Norman Tepley <br> Paul A. Tipler |
| Assistant Professors: | Granvil C. Kyker, Jr. <br> Marshall J. Sheinblatt <br> W. Donald Wallace |

The Department of Physics offers comprehensive programs in basic physics leading to the degrees of Bachelor of Arts and Bachelor of Science. Each curriculum provides a solid foundation in both classical and modern physics. The Bachelor of Science degree major in physics is intended primarily for students who plan to become professional scientists and qualifies them for graduate studies in the physical sciences or for research positions in government and industry. The Bachelor of Arts degree major in physics is intended primarily for students with broader interests, who desire a less specialized background in psysics, as for example, students who plan to take graduate work in a non-science field, to enter the medical profession, or teach in secondary schools. The Bachelor of Arts degree program does not necessarily preclude a professional career in science if the student elects to supplement the program requirements with additional courses.

The Department of Physics offers programs of study at the graduate level leading to the degree of Master of Science. For further information on the graduate program, see the Graduate Bullefin.

## Requirements for the Bachelor of Science Major in Physics

(a) 30 credits in physics courses at or above the 300 level, including either PHY 371 (Modern Physics) or PHY 472 (Quantum Mechanics I).
(b) PHY 158 Laboratory.
(c) 16 credits of mathematics, at a level not below MTH 154.
(d) 8 credits of Chemistry, at a level not below CHM 114.
(e) 2 credits of computer programming, or equivalent experience.
(f) Fulfillment of all other University graduation requirements.

Requirements for the Bachelor of Arts Major in Physics
(a) 52 credits in physics, mathematics or chemistry of which,
(b) at least 32 credits shall be in physics of which,
(c) at least 22 credits shall be in courses with numbers above 200.
(d) Fulfillment of all other University graduation requirements.

## Requirements for the Secondary Teaching Major in Physics

ED 244, 245, 428, 455 in addition to the requirements for the Bachelor of Arts major in physics.

## Requirements for the Secondary Teaching Minor in Physics

Twenty credits in physics are required.

## Bachelor of Science Major in Physics

(A Typical Program)

Fall
Semester 1
CHM 114
CHM 117
MTH 154
Distribution Requirement**
Learning Skills or
Distribution Requirement**
Fall
Semester 3
PHY 152
PHY 158
MTH 254
Computer Prog.*
Distribution Requirement**
Fall
Semester 5
PHY 318
PHY 331
PHY 348
PHY 371
Distribution Requirement**

Winter
Semester 2
PHY 151
CHM 115
CHM 118
MTH 155
Learning Skills or
Distribution Requirement**

## Winter

Semester 4
PHY 341
PHY 347
PHY 361
MTH 255
PHY 317

## Winter

Semester 6
PHY 381
MTH 431***
Distribution Requirement**
Distribution Requirement**

## ARTS AND SCIENCES

Fall
Semester 7
PHY 421***
PHY 472***
PHY 490***
Elective
*Computer Programming (2 credits), EGR 180 or equivalent.
**For general education requirements, see pp. 90-98.
***Suggested electives for students planning graduate work in Physics.

## Bachelor of Arts Major in Physics

(A Typical Program)

Fall
Semester 1
CHM 114
CHM 117
MTH 134
Distribution Requirement**
Learning Skills or
Distribution Requirement**
Fall
Semester 3
PHY 102*
MTH 155
Distribution Requirement**
Distribution Requirement**
Fall
Semester 5
PHY 202
Distribution Requirement**
Electives

Fall
Semester 7
PHY 318
PHY 371
Electives $\dagger$
*Students who take MTH 154 in Semester 1 may wish to replace PHY 101-102 with PHY 151-152.
**For general education requirements, see pp. 90-98.
***EGR 180 (2 credits) or equivalent.
$\dagger$ Suggested electives in Physics: 331, 361, 381, 348, and 490.

## ARTS AND SCIENCES

The following two-semester course, PHY 101-102 is open to all students and may be used by non-science majors to fulfill the general education requirement for the College of Arts and Sciences in Natural Sciences.

## PHY 101-102 General Physics (4 credits each)

An introduction to classical and modern physics. Particle mechanics, wave motion, electricity and magnetism, properties of atoms and atomic systems are considered. Calculus is not required. Not intended for students majoring in physics, chemistry, engineering, or mathematics.
Prerequisites for PHY 101: High school algebra and trigonometry or MTH 134.
Prerequisites for PHY 102: PHY 101 or permission of the Instructor.
Each of the following two courses, PHY 104-105, may be used by non-science majors to fulfill the general education requirement for the College of Arts and Sciences in Natural Science.

## PHY 104 Classical Astronomy

(4 credits)
Early observations and theories. The universe as seen by Ptolemy and Copernicus and their concepts as refined by Brahe, Kepler, and Newton. Light and optical instruments. The earth-its place and motion in the universe. Time and seasons. The moon-its mass, size, composition, and motion-eclipses. The planets-their mass, size, composition, and motion. Manned and un-manned exploration of the moon and planets.
Prerequisite: High school algebra with some trigonometry desirable.

## PHY 105 Modern Astronomy

(4 credits)
Stellar astronomy-energy production in the sun and stars. Properties of starlight. Classification of stars. Radio astronomy. Stellar evolution. Gravitational collapse. New astronomical objects-quasars, pulsars, radio galaxies. The primeval fireball. Cosmology-origin, history, and future of the universe.
Prerequisite: High school algebra with some trigonometry desirable.
The following courses are designed primarily for the physics major and for other majors in the sciences and engineering.

## PHY 151-152 Introductory Physics (4 credits each)

Mechanics, electricity and magnetism, wave motion, and optics for science, mathematics, and engineering students.
Corequisite for PHY 151 is MTH 154.
Corequisite for PHY 152 is MTH 155.

## PHY 158 Introductory Physics Laboratory

(2 credits)
Prerequisites: High school physics, PHY 101, or PHY 151; MTH 122 or MTH 154.
PHY 201 Classical Mechanics and
(4 credits) Thermodynamics
Single particle mechanics: simple harmonic motion, gravitation, motion in a central force field. Dynamics of a system of particles: center of mass, linear momentum, angular momentum, kinetic energy, potential energy, collisions. Temperature.

## ARTS AND SCIENCES

First law of thermodynamics, heat capacity, heat conduction, kinetic theory of an ideal gas. Second law of thermodynamics.
Prerequisites: MTH 154, and PHY 102 or PHY 152.
Corequisite: MTH 155.
PHY 202 Classical Electromagnetism and Light (4 credits)
Electric field, lines of force, conductors, capacity, dielectrics, current. Magnetic field. Inductance. Magnetic field in matter. Simple AC circuits. Electromagnetic waves. Reflection and refraction of plane waves.
Prerequisites: PHY 201, Calculus 155.

## PHY 317-318 Infermediate Laboratory (2 credits each)

Optics, atomic physics, and nuclear physics experiments, shop techniques, vacuum systems, error analysis.
Prerequisite: PHY 158.
PHY 331 Optics
(4 credits)
Geometrical optics, optical instruments, wave theory of reflection refraction, interference, diffraction, and polarization of light.
Prerequisites: PHY 152, MTH 155.

## PHY 341 Electronics

(4 credits)
Circuit theory, vacuum tubes, transistors, power supplies, linear amplifiers, feedback, oscillators.
Prerequisites: PHY 152, PHY 158, MTH 155.

## PHY 347-348 Electronics Laboratory <br> ( 2 credits each)

A.C. circuits and electronics experiments.

Corequisite for PHY 347 is PHY 341.

## PHY 361 Mechanics I

(4 credits)
Applications of Newton's laws to particles, systems of particles, harmonic oscillators, central forces, accelerated reference frames, and rigid bodies.
Prerequisite: PHY 152.
Corequisite: MTH 254.

## PHY 371 Modern Physics

(4 credits)
Relativity, atomic physics, the experimental bases of quantum mechanics, and properties of nuclei.
Prerequisites: PHY 152, MTH 155.

## PHY 381 Electricity and Magnetism I

(4 credits)
The development of Maxwell's equations from the experimental laws of electricity and magnetism. Vector calculus, potential theory, boundary conditions on the electromagnetic field vectors, field energy, properties of dielectrics, conductors, and magnetic materials.
Prerequisites: PHY 152, MTH 254; MTH 255 desirable.
PHY 400 Seminar
(1 credit per semester)
PHY 405 Special Topics
(2, 4, 6, credits)
Prerequisite: Permission of the Department.

## ARTS AND SCIENCES

## PHY 417-418 Advanced Laboratory (2 credits each)

Methods of experimental physics. Experiments and projects in all areas of classical and modern physics, with emphasis on research techniques and detailed analysis of experimental data.
Prerequisites: PHY 317-318, 341, and 347-348, or equivalent.
Prerequisites or corequisites: PHY 331, 361, and 371, or equivalent.

## PHY 421 Thermodynamics (4 credits)

The zeroth, first and second laws of thermodynamics with applications to pure substances. Introduction to the kinetic theory of gases and to statistical mechanics. Prerequisites: PHY 151, MTH 254.

## PHY 472 Quantum Mechanics I

(4 credits)
Principles of non-relativistic quantum mechanics, Schrodinger wave equation, expectation values of energy, position, momentum and angular-momentum operators, spin, perturbation theory, identical particles-with applications to atomic systems. Prerequisites: PHY 361, MTH 255.
PHY 482 Electricity and Magnetism II (4 credits)
Multipole fields, solutions of Laplace and Poisson equations, electromagnetic waves in insulators and conductors, the derivation of the laws of optics from Maxwell's equation.
Prerequisites: PHY 381, MTH 255.
PHY 490 Independent Study and Research (2, 4, or 6 credits) Prerequisite: Permission of the Department.

Courses in physics on the 500 level are graduate courses available to well-prepared undergraduate students with permission of the Department.

## PHY 542 Advanced Electronics

(4 credits)
Selected topics in the analysis and design of electronic circuits.
Prerequisite: PHY 341.

## PHY 548 Advanced Electronics Laboratory <br> (2 credits)

Prerequisite: PHY 348.
PHY 562 Mechanics II
(4 credits)
Methods of Lagrange and Hamilton, tensor algebra, rigid bodies in three dimensions, continuous media, and coupled systems.
Prerequisites: PHY 361, MTH 255.

## PHY 573 Nuclear Physics

(4 credits)
The properties of ground and excited states of nuclei, nuclear reactions, fundamental particles, nuclear forces, interaction of particles and photons with matter, and nuclear particle detectors.
Prerequisite: PHY 472.

## PHY 574 Introduction to Solid State Physics

(4 credits)
An introduction to the thermal, electrical, and magnetic properties of solids (with emphasis on current experimental techniques), including periodic structures, lattice dynamics, electron interactions and behavior, transport properties, the Fermi surface and optical behavior, and superconductivity.
Prerequisite: PHY 472 or equivalent.

## ARTS AND SCIENCES

Other advanced graduate courses in physics described in the Graduate Bulletin are:

| PHY | 600 | Seminar | (1 credit) |
| :--- | :--- | :--- | ---: |
| PHY | 673 | Quantum Mechanics II | (4 credits) |
| PHY | 674 | Quantum Mechanics III | (4 credits) |
| PHY | 690 | Research | (2 to 12 credits) |

## DEPARTMENT OF POLITICAL SCIENCE

\author{
Professors:
Assistant Professor
Instructors:

Associated Faculty
Professor:
}

Political science offers a concentrated and systematic study of politics at all levels of government and in many different cultural and national settings. Policy-making, law, administration, international politics, foreign governments, and theories and philosophies of government are among the many topics explicated by these courses. The general educational aim is to increase the student's awareness and understanding of the broad realm of politics and government. Many students electing this major wish to prepare for careers in public service, law, practical politics, or the teaching of government and social studies. The liberal arts degree is not designed as a vocational degree; however, there are course combinations and selections that are appropriate for students with such defined career objectives. These alternatives will be mentioned below.

Departmental honors are conferred upon graduates who successfully complete a PS 490 research project and paper at the honors level during their senior year. The student seeking honors should obtain the permission of the Department prior to registering for a 490 project. There are opportunities for advanced students to undertake independent readings and research under the PS 390 and PS 490 numbers; these also require pre-enrollment in the Department office.

Requirements for the Liberal Arts Major in Political Science
The major requires nine courses ( 36 credits) in political science including PS 100, PS 131, and PS 221 or PS 222. These courses

## ARTS AND SCIENCES

are offered every Fall and Winter semester. The rest of the major can be freely elected among the offerings of the Department as listed in this catalog.

## Recommended courses for freshmen and prospective majors

For the freshman, or the general student with some interest in political science, the introductory courses American Politics (PS 100) and Foreign Political Systems (PS 131) are recommended. U.S. Foreign Policy (PS 115) and Contemporary Political Issues (PS 110) are suited to both the general student and the prospective major in the Department. PS 110 will deal selectively with a current political issue or topic as announced in the bulletin of classes each semester. Prospective majors might also consider either Western Political Thought (PS 272-273) or Communism (PS 277) as an indepth background to many other course topics in the major.

## Recommended courses for students interested in public service or governmental careers

For the student who seeks a career in government service it is advisable to pursue courses in aspects of American politics (PS 301, 302), law (PS 241, 342, 440, 441), public administration (PS 251), local and metropolitan politics (PS 205), and policy analysis (PS 400, 401). The prospective administrator should improve his skills in quantitative analysis, through PS 221 or PS 222, and, outside the Department, through courses in computer science, economics, and management.

## Recommended courses for students interested in Law School

The political science major interested in law school should elect the law courses given in the department - Law and Politics (PS 241) the American Legal System (PS 342) and, when offered, the Seminar in Public Law (PS 440, 441). The pre-law political science major may obtain more information by consulting the collection of law school catalogs maintained by the Departmental office and by contacting the Department's pre-law advisor.

## Recommended courses for students interested in graduate study

The undergraduate political science program may be pursued as a preparation for advanced graduate programs given at other

## ARTS AND SCIENCES

universities. Some careers in public administration and planning require a master's degree. Careers in teaching political science in a community college require an M.A. degree, and university level teaching and research normally require the Ph.D. degree. Students with these career aspirations may acquire brochures from the Departmental office and are welcome to consult any of the faculty for more detailed information.

## The Liberal Arts Political Science Major and Concentrations

It is possible to pursue a reduced major in political science in combination with one of a number of concentrations which are described elsewhere in this catalog. Included as options are the Speech Concentration (see p. 261), and the several area concentrations: East Asia, South Asia, Latin America, and the Slavic Area (see pp. 266-274).

For students who wish to emphasize political science and pursue a secondary education career in social studies, the appropriate program information can be found on pp. 278-279 of this catalog.

## PS 100 Introduction to American Politics

(4 credits)
A study of the process of decision-making in the American national government and of the ways in which parties, groups, and individuals work to produce public policy in the Congress, the Presidency, and the courts.

## PS 110 Contemporary Political Issues

(4 credits)
Selected topics dealing with current political issues or public policy problems. The particular topic will be announced at the time of offering. The course is designed for the general student and will be available with no prerequisites.

## PS 115 U.S. Foreign Policy

(4 credits)
Study of the foreign policy issues and challenges confronting the United States in the nuclear age, in the light of the historical evolution of American diplomacy, and of the limitations imposed upon foreign policy makers by public opinion and the exigencies of domestic politics. Offered in the Winter Semester.

## PS 131 Foreign Political Systems

(4 credits)
Analysis of the politics and governmental systems of selected countries in the contemporary world; types chosen range from established constitutional democracies and totalitarian systems, to movements and regimes of new and developing nations. Offered in the Fall and Winter Semesters and in the Spring Session.

## PS 163 Black Politics

(4 credits)
Analysis of Afro-Americans and their relationship to the American political system. Emphasis is given to Black political ideologies and thought, political organizations and strategies, and forms of political participation both electoral and non-electoral.

## ARTS AND SCIENCES

## PS 205 Politics of the Local Community

(4 credits)
Study of state and local government, local political forces, trends in metropolitan and suburban politics, problems of planning in an age of urbanization. Offered in the Fall Semester.

## PS 213 International Politics

(4 credits)
Intensive interdisciplinary study of concepts and hypotheses basic to understanding and analysis of relations among nations. The class may engage in a simulation exercise in international conflict and in the analysis of a number of actual cases to gain experience in the application of the hypotheses studied. Offered in the Fall and Winter Semesters.

PS 221 Systematic Political Analysis
(4 credits)
An introduction to formal models in political science. Offered in the Fall and Winter Semesters.
Prerequisite: Sophomore standing.

## PS 222 Measurement and Mełhodology

(4 credits)
An introduction to the design of research, the measurement of political variables, and the analysis of data.

## PS 241 Law and Politics

(4 credits)
A broad survey of the relationship of law and legal systems to politics and political systems. The student will be exposed to the classic jurisprudential, historical, anthropological, and comparative treatments of the subject. Offered in the Fall Semester. Prerequisite: PS 100.

## PS 251 Public Administration

(4 credits)
Intensive study of government in action, with special attention to policy formulation, organization, personnel administration, supervision, coordination, administrative control, and accountability. Offered in the Winter Semester.
Prerequisite: PS 100.

## PS 271 American Political Thought

(4 credits)
The writings of prominent American thinkers and statesmen whose ideas have influenced the development of the American polity will be considered. Selected texts by European thinkers will also be examined with a view to their influence on America. Not offered on any set schedule.
Prerequisite: PS 100 or permission of the instructor.
PS 272, 273 Western Political Thought (4 credits each)
A two semester survey of Western political philosophy. Each major philosopher, from Plato to Marx, is placed in his historical setting so as to show the interrelationships between the philosopher's environment and his ideas. Offered regularly Fall and Winter Semesters.

## PS 277 Communism

(4 credits)
The development of revolutionary socialism from early Marxism to the present day. The course analyzes the relevance of Marxism to a variety of contemporary revolutionary situations. Offered in the Fall Semester.

## PS 290 Political Science Laboratory <br> (2 or 4 credits)

From time to time, collateral, independent work of various kinds will be offered to students in conjunction with regular departmental courses. These opportunities may be limited to students enrolled in particular courses and may be restricted to political

## ARTS AND SCIENCES

science majors. Such work may be taken more than once. Not offered on any set schedule.
Prerequisite: Permission of the instructor before registration.

## PS 301 American Presidency and the Executive Process

A study of presidential politics, decision-making, and leadership in the American political system. Offered in the Winter Semester.
Prerequisite: PS 100.
PS 302 Legislative Process and Public Policy (4 credits) A study of legislative behavior and decision-making, emphasizing the problems of public policy development in the American political system. Offered in the Fall Somester.
Prerequisite: PS 100.

## PS 314 Political Socialization

(4 credits)
The study of how individuals within the political system come to hold particular attitudes, values, and beliefs which can be viewed as predictive of their political behavior.
Prerequisites: PS 221 or PS 222.

## PS 330 Comparative Political Theory

An examination of the various approaches and theories that are used in comparative political research, including theories of development and modernization.
Prerequisite: PS 131.
PS 331 The Political Systems of Britain
(4 credits) and Canada
An analysis and comparison of British and Canadian politics, parties, parliament, politicking and public policy.
Prerequisite: PS 131.

## PS 332 Politics of the Middle East and North Africa

(4 credits)

Examination of the policies of the Middle East and North Africa. The cultural and historical factors that influence the contemporary politics of the area will be emphasized. Topics include religion, social structures, economic problems, the impact of the West, and the Arab-Israel conflict.

## PS 333 African Politics

(4 credits)
Examination of politics of selected African states, emphasizing West Africa. The primary focus of the course is on political development. Attention is given to traditional and colonial politics as well as to individuals, groups, and institutions that make up the present political process. Offered in the Winter Semester.
Prerequisite: 1 course in Political Science.

## PS 334 Political Systems of Southern Asia (4 credits)

Examination of the elements of political life in India and Pakistan. The cultural, historical, social, and economic factors that influence contemporary political institutions; the issues; and the processes by which political conflicts are resolved will be studied. Politics in Ceylon, Nepal, and Himalayan border kingdoms may also be considered. Prerequisite: UC 066.

## ARTS AND SCIENCES

## PS 335 Politics of Latin America

(4 credits)
Analysis of the political systems of Latin America and the historical, social, and economic factors underlying them. The major countries are studied intensively, and a comparative approach is used to examine the variations from democracy to dictatorship and the political instability that characterize the area. Offered in the Fall Semester. Prerequisife: PS 131 or UC 068.

## PS 336 U.S.-Latin American Relations

(4 credits)
Analysis of contemporary relations of the United States with the countries of Latin America. Relations with particular countries will be studied as well as the overall economic, military, and diplomatic aspects of our Latin American policy. The InterAmerican system and regional groupings within Latin America will also be studied. Offered in the Winter Semester. Prerequisites: PS 131 or UC 068.

## PS 337 The Soviet Political System

(4 credits)
A descriptive analysis of the Soviet society as a political system; its origins, institutions, and political behavior. Trends and developments in the system will be assessed, and comparisons with other political systems will be undertaken. Offered in the Winter Semester.
Prerequisite: PS 277.

## PS 338 Modern Chinese Politics

(4 credits)
An analysis of the rise of social movements in China after the breakdown of the traditional order; the emergence of the Nationalist and Communist regimes and the triumph of the Communists; the political processes of the People's Republic of China, emphasizing the role of elites in policy formation, ideology, mass support, and the exercise of central power. Offered in the Fall Semester.
Prerequisite: UC 062.

## PS 339 Sino-Soviet Relations

(4 credits)
The relations between the People's Republic of China and the U.S.S.R., emphasizing the reaction to the Russian experience by the leaders of China and the split between the U.S.S.R. and the People's Republic. Offered in the Winter Semester. Prerequisite: UC 062.

## PS 342 The American Legal System

(4 credits)
A study of the American legal system in relation to politics and the American political system. The course emphasizes the functioning of the United States Supreme Court as a legal and political instrument. Offered in the Winter Semester. Prerequisite: PS 241.

## PS 361 Political Parties

(4 credits)
The development of the concept of party in political research and political action; analysis of the growth and function of parties and party competition in modern societies. Offered in the Winter Semester.

## PS 364 Voting Behavior

(4 credits)
An examination of the voting behaviors of both individuals and groups. Some consideration of survey research, both methods and results, will be included.
Prerequisites: PS 221 or PS 222.
PS 365 Public Opinion
(4 credits)
A study of the formation, communication, and change of the politically relevant

## ARTS AND SCIENCES

opinions of individuals and groups in modern societies and of the ways in which these opinions lead to political actions. Offered in the Fall Semester. Prerequisites: PS 221 or PS 222.

## PS 381 Polifical Theory

(4 credits)
The role of theory in the study of politics; the use of formal models and systems theories; examination of the problems of developing a science of politics and its relationship to value and policy questions.
Prerequisites: PS 221 or PS 222.
PS 390 Directed Readings
(2 or 4 credits)
Readings not normally covered in existing course offerings. Directed on an individual basis. Consent of the Department and permission of the instructor is required before registration.

## Seminars

From time to time, the Department offers seminar courses at the advanced level in which a topic or problem is studied in depth, and in which individual student research of a significant sort is presented for analysis and criticism. The seminar titles refer to the broad fields of political science within which the problem falls; the precise problems to be studied will be announced by the Department at the time the seminars are offered.

| PS | 400,401 | Seminar in Public Policy | (4 credits each) |
| :---: | :---: | :---: | :---: |
| PS | 410,411 | Seminar in World Politics | (4 credits each) |
| PS | 420,421 | Seminar in Political Behav | (4 credits each) |
| PS | 430, 431 | Seminar in the Comparative of Political Systems | dy <br> (4 credits each) |
| PS | 440,441 | Seminar in Public Law | (4 credits each) |
| PS | 480,481 | Seminar in Political Theory | (4 credits each) |
|  | $490$ <br> ed in the quisites: tration. | ial Topics or Directed Resear <br> Winter Semesters and in the Spr --level courses require consent of | 4, or 8 credits) <br> d Summer Sessions. Department before |

## ARTS AND SCIENCES <br> DEPARTMENT OF PSYCHOLOGY

| Professors: | David C. Beardslee <br> Harvey Burdick <br> Donald D. O'Dowd |
| :---: | :---: |
| Associate Professors: | Jean S. Braun <br> Daniel N. Braunstein <br> Max Brill <br> Kenneth H. Coffman <br> Peter Jammers-Murdoch <br> Boaz Kahana, Chairman <br> David G. Lowy <br> Ralph Schillace <br> Irving Torgoff |
| Assistant Professors: | Robert N. Blockovich Joseph S. Dumas Algea O. Harrison Leonard Ireland Gary A. Klein Lorna A. Middendorf Virginia E. O'Leary <br> R. Lucía Pérez F. Edward Rice David W. Shantz Harold Zepelin |
| Instructor: | Allen Hess |
| Associated Faculty Professor: | Edward A. Bantel <br> (Education and Psychology) <br> Donald C. Hildum <br> (Speech Communication and Psychology) |

The undergraduate psychology program is directed to the student who wishes a broad foundation in contemporary psychological science, with emphasis both on methods of study and on interpretation of research. This program leads to the degree of Bachelor of Arts with liberal arts major in psychology.

The Psychology Department has no specific course requirements for a major in the department. The single requirement is that the student satisfactorily complete 36 credit hours of course work in the field.

A Psychology Department pamphlet, "Majoring in Psychology at Oakland University," is available through the Psychology Office, Room 357 Hannah Hall. This pamphlet discusses majoring in

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psychology in more detail. Modifications in curriculum, etc., semester by semester, are indicated in new versions of the pamphlet which are printed as the need arises. The student majoring in psychology or contemplating doing so should obtain a copy of this pamphlet.

The Psychology Department recognizes that students are individually quite different one from the other. We have planned our curriculum with at least four general "types" of students in mind: (A) the student who is not sure why he or she is majoring in psychology; (B) the student who plans, after obtaining his or her B.A. in Psychology, to find employment rather than continuing with formal education; (C) the student who wants to become a professional psychologist, and therefore plans to go to a graduate school in psychology; and (D) the student who plans to go on in a field other than psychology that requires further formal training. The pamphlet "Majoring in Psychology at Oakland University" discusses these types of students further, and makes suggestions to each type as to specific courses which he or she might take.

The Psychology Department also prints a pamphlet "On Going to Graduate School in Psychology from Oakland University." It is intended for students of type 3, who are in either their junior or senior years and it is also available from the Psychology Office. For programs leading to the degree of Master of Arts in Clinical Psychology or in Developmental Psychology from Oakland University see the Oakland University Graduate Bulletin.

## NOTES

Juniors and Seniors are particularly encouraged to do research projects under the course numbers PSY 480-485. Research experience is at the heart of contemporary psychology. Psychology students are also strongly encouraged to volunteer to serve as subjects for some of the ongoing research. In all cases once the data is collected subjects will be provided with an explanation of the rationale behind the research. The experience of serving as a subject should be valuable.

A student majoring in psychology who wishes to earn departmental honors must submit, approximately six weeks before the end of his or her last semester, an application for honors. Application blanks, having the exact deadline date, are available at the Psychology Department office. The application calls for a list of psychology courses taken, together with an indication of instruc-

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tors and grades, plus a selection of written materials submitted earlier in courses or produced especially for this application. The papers may be experimental, speculative, or historical, or accounts of the applicant's experience in some area of applied psychology. Independent laboratory or field work will be given special notice. Applications will be read by a departmental committee which is empowered to grant honors to no more than one third of any year's departmental graduates.

## DEPARTMENT COURSES AND PREREQUISITES

Individual courses in the Psychology curriculum have prerequisites which are intended to be as meaningful as we can make them and as minimal as is reasonable. The prerequisites also indicate the general level at which the course is conceived. Courses generally are more advanced as the numbering goes from 100 courses towards 500 courses.

UC 054 Introduction to Social Psychology (4 credits)
Observational, experimental, and analytical techniques for the objective study of relationships among men and the effects of these relationships upon the participants in them. The analysis of social functions and roles; the study of the development and change of attitudes, beliefs, and values; the influence of social groups on the individual; and the development of personality in relation to the social milieu are considered. Required of all teaching candidates, who should take this course in one of the first two semesters.
Prerequisite: None.

## PSY 146 Foundations of Contemporary Psychology

The basic processes studied by psychologists. Topics include the central psychological processes of learning, perceiving, remembering, thinking, emotion, motivation, etc. Also looks at the comparative and physiological approaches to these topics. Prerequisite: None.
PSY 215 Psychological and Field
(4 credits) Studies in Education
Psychological factors involved in learning and development are examined in lectures, class discussions, and observations of teaching. These observations may be of actual teaching in the schools, or they may be observations of video tapes of teaching. Identical with ED 245.
Prerequisite: Two exploratories plus one PSY course or UC 054.

## PSY 220 Abnormal Psychology

The psychodynamics of abnormal behavior, clinical types, methods of investigation, and principles of psychotherapy. Formerly listed as PSY 251.
Prerequisite: UC 054 or PSY 146.

## PSY 230 Environmental Psychology

(4 credits)
The relationship between behavior and the man-defined environment. Topics include: human ecology, basic psychological processes and the environment, individual needs

## ARTS AND SCIENCES

in the organization of the environment, social institution and environmental planning. Prerequisite: One PSY course or UC 054.

## PSY 236 Organizational Behavior II (4 credits)

Theoretical and empirical approaches to understanding the design and behavior of complex organizations. Identical with MGT 331.
Prerequisite: UC 054, PSY 146, or MGT 330.

## PSY 241 Individual Differences (4 credits)

Intellectual, motivational, and personality differences associated with age, social roles, sex, ethnic and racial groups, and social class.
Prerequisite: UC 054 or PSY 146.

## PSY 246 Applied Psychology

(4 credits)
The areas in which "psychology" has been put to work, such as childbearing, teaching and training methods, personality and aptitude testing, sensitivity training, human engineering, environmental design, animal behavior, etc.
Prerequisite: UC 054 or PSY 146.

## PSY 252 Statistics and Research Design <br> (4 credits)

The pirncipal statistical procedures commonly employed in research in the social sciences. Emphasis is given to the design of experimental studies, problems of sampling and control of variables, and psychological measurement. Two years of high school mathematics are recommended. Formerly listed as PSY 231.
Prerequisite: PSY 146.

## PSY 271 Child Development

(4 credits)
Theory and principles of the development of the child from birth to puberty. Selected topics include: maturational processes, learning and motivation, intelligence, the self concept, and child-rearing practices. Formerly listed as PSY 171.
Prerequisite: UC 054 or PSY 146.

## PSY 272 Psychology of Adolescence and Maturity

Biological and psychosocial development during adolescence and adulthood will be explored. Theories of adolescence and adulthood will be considered in light of recent research evidence. There will be special emphasis on problems of adolescence from the perspectives of parents and teachers.
Prerequisite: UC 054 or PSY 146.

## PSY 320 Theories of Personality <br> (4 credits)

Major theories of human personality development and principles of personality theory building.
Prerequisite: PSY 146 and 2 other Psychology courses.

## PSY 321 Experimental Psychopathology <br> (4 credits)

Basic philosophy of science, issues in design and methodology of psychological research with application to abnormal behavior. Experience in data collection. Prerequisite: PSY 220 and PSY 252.

## PSY 330 Research Methods in Social Psychology (4 credits)

Theory and techniques of survey research, field experiments, laboratory experiments and field studies will be covered.
Prerequisite: UC 054 and PSY 252.

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## PSY 335 Psycholinguistics

(4 credits)
The psychology of language, pointing up the accommodation between the cognitive and physical structure of human beings and the structure of language, the nature of the language learning process, and the consequences of language use. Identical with LIN 335.
Prerequisites: One course in Psychology and one course in Linguistics, or permission of the instructor.

PSY 340 History and Systems of Psychology (4 credits)
How Psychology came to be as it is. From the beginning to the great Experiments and the Schools of Psychology. From the Schools to World War II. From World War II to the present. Men, experiments, theories. Formerly listed as PSY 431. Prerequisites: PSY 146 and two other psychology courses other than PSY 252.

## PSY 350 Motivation

(4 credits)
The nature of physiological and behavioral mechanisms that control an organism's reaction to the demands of its environment.
Prerequisite: PSY 146.

## PSY 351 Learning, Memory and Thinking (4 credits)

Approaches to learning, memory, and thinking processes. Includes such topics as conditioning, problem solving, verbal behavior, storage systems, and organization. Prerequisites: PSY 146 and PSY 252.
PSY 352 Sensation and Perception (4 credits)
Approaches to the basic sensory systems and perceptual processes. Prerequisites: PSY 146 and PSY 252.

## PSY 354 Comparative Psychology

(4 credits)
The literature on sub-human animal behavior with reference to its relevance for the understanding of behavior in general. Looks at a range of species from amoeba and the insects up to the primates. Looks at "basic process" behaviors, abnormal behaviors, social behaviors, etc. Formerly listed as PSY 371.
Prerequisite: PSY 350.

## PSY 355 Physiological Psychology

(4 credits)
The physiological mechanisms underlying the behavior of organisms, including man. Treats such topics as the structure of the nervous system and the principle chemistry of the body. Deals with the physiology of learning, memory, perception, motivation, emotion, etc.
Prerequisite: PSY 350 or 351 or 352 and BIO 104 or BIO 111.

## PSY 427 Advanced Personality

(4 credits)
The development and functioning of the adult person, with emphasis on experimental and clinical approaches to understanding.
Prerequisite: PSY 320.

## PSY 430 Advanced Social Psychology

(4 credits)
Critical study of selected areas in social psychology conducted by all members of social psychology staff. Formerly listed as PSY 423.
Prerequisite: Permission of the instructor.
PSY 433 Attitudes and Opinions
(4 credits)
The nature and functions of attitudes, the relations between attitudes and personality and between attitudes and behavior. Attitude measurement, the formation of

## ARTS AND SCIENCES

attitudes, and attitude change, including strategies for persuasion. The manipulation of attitudes and opinions through advertising and political propaganda.
Prerequisites: 4 courses in Psychology (UC 054 and PSY 330 recommended).

## PSY 435 Psychology of Communication <br> (4 credits)

Selected topics from among the following: the nature and origin of language; structural syntactics and semantics and their psychological significance; translation; persuasion; mass communication, including its sources, determinants, organization, messages, audience, and effects. (Normally offered in the Fall Semester.)
Prerequisite: UC 054 or PSY 146.

## PSY 451 Experiments in the Basic Processes (4 credits)

Empirical and theoretical investigation of issues in learning, perception, thinking, physiological psychology, and animal behavior, with research projects. Formerly listed as PSY 421.
Prerequisite: PSY 321 or 330 or 351 or 352.

## PSY 471 Socialization in the Family

(4 credits)
Some of the areas of research and theory on socialization process. Areas of focus: attachment and separation, conscience development, sex-role identity, ego-identity, etc. Role of principal agents: e.g., family, peers, school, etc.
Prerequisite: PSY 271.

## PSY 480-485 Readings and Research Projects (2 or 4 credits)

Individual readings or laboratory research on a topic mutually agreed upon by a student and a member of the psychology department faculty. (The course numbers will be rotated from one term to another.) Formerly listed as PSY 363.
Prerequisite: Permission of the instructor.

## PSY 510 Developmental Psychology

(4 credits)
Description and evaluation of the principles and theories of development from birth to maturity. Maturational processes, learning, and emotional disturbances will be some of the issues considered.
Prerequisite: Permission of Instructor or acceptance into MAT program.

## PSY 512 Tests and Measurement

(4 credits)
Theories of measurement and evaluation. Construction and examination of tests of ability, achievement, interests, and special aptitudes. Objective tests of personality. Formerly listed as PSY 520.
Prerequisite: Permission of Instructor or acceptance into MAT program.

## PSY 513 Psychopathology of Childhood

(4 credits)
The psychopathology of children and adolescents, emphasizing dynamic and cogni-tive-perceptual-motor variables. Formerly listed as PSY 525.
Prerequisite: PSY 510 or PSY 512, or acceptance into MAT program in special education, or psychology major or permission of instructor.

## PSY 540 Behavior Theory and Learning

(4 credits)
Conditioning, reinforcement, punishment, drives, and transfer of training will be studied in their relationship to such complex human processes as education, psychotherapy, and the development of motives.
Prerequisite: PSY 252, 351, 353 and two more psychology courses and/or acceptance into the graduate program.

## PSY 541 Advanced General Psychology

(4 credits)
Covers same material as PSY 146 but more thoroughly. Adds material on other common psychological topics such as developmental, personality and testing, abnormal,

## ARTS AND SCIENCES

and social psychology. Also looks at other less familiar topics. Aimed at student who plans to go on and wants to pause and pick up a total and rounded picture of the field.
Prerequisite: Permission of the Instructor.

## PSY 551 Advanced Statistics

(4 credits)
Following a review of descriptive and simple inferential statistics, major emphasis will be given to analysis of variance procedures and non-parametric statistics. An introduction to functions and procedures of factor analysis will also be presented. Formerly listed as PSY 561.
Prerequisite: PSY 252.

## PSY 570 Social and Personality Development (4 credits)

Major contemporary theoretical, research, and applied activity focusing on familial and extra-familial socialization, parent-child relations, peer influences, and the impact of social change on personality development. This material will be integrated with field experiences in relevant settings.
Prerequisite: PSY 271 and permission of instructor/or acceptance into graduate program.

## PSY 571 Perceptual and Cognitive Development (4 credits)

Major contemporary theoretical, research, and applied activity in the developmental nature of perception, learning, reasoning, concept formation, cognitive style, problemsolving behavior, and language. This material will be integrated with field experiences in relevant settings.
Prerequisite: PSY 271 and four more psychology courses and permission of instructor and/or acceptance into graduate program.

## PSY 572 Psychology of Adolescence and Aging (4 credits)

Significant structural, functional, and behavioral changes during adolescence and old age. This material will be integrated with field experiences in relevant settings. Prerequisite: PSY 271 and permission of instructor/or acceptance into graduate program.

## PSY 575 Theories of Development <br> (4 credits)

Major issues and theories concerning the developmental process from birth to old age. The approaches of such theorists as Lewin, Freud, Piaget, Erikson, and leading exponents of social-learning theory will be examined. Formerly listed as PSY 515. Prerequisite: PSY 271 and permission of instructor/or acceptance into graduate program.

## PSY 590-595 Seminar

(4 credits)
These seminars will be offered occasionally by faculty members wishing to explore special topics not listed among our regular offerings, either on their own initiative or at the request of a group of students.
Prerequisite: Permission of the Instructor.

## PSY 597, 598 Apprentice College Teaching

(4 credits)
Supervised participation in the teaching of an undergraduate course in psychology, together with discussion of teaching objectives and methods. Only one of these courses may be offered in fulfillment of departmental requirements.
Prerequisite: Permission of the Instructor.

## Note:

The Department of Psychology offers several other courses which are not listed here because they are graduate program courses and are not open to undergraduates.

## ARTS AND SCIENCES

## DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY

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\begin{array}{ll}\text { Professors: } & \begin{array}{l}\text { Nahum Z. Medalia, Chairman } \\
\text { Jesse R. Pitts (on leave Fall 1972) } \\
\text { Associate Professors: }\end{array}
$$ <br>
Harry Gold <br>

Audrey Smedley (On leave)\end{array}\right\}\)| Peter J. Bertocci |
| :--- |
| William Bezdek |
| Judith K. Brown (on leave Winter 1973) |
| Karen Sacks |
| Jacqueline Scherer |
| Instructors: |
| James Dow <br> John Huner <br> Harold A. Olofson <br> Edward Slawski |
| Associated Faculty |
| Professor: | | Philip Singer |
| :--- |
| (Behavioral Sciences and Anthropology) |

The Department of Sociology and Anthropology participates in several degree programs, each of which is designed to provide the maximum degree of flexibility to serve the student's interests while, at the same time, providing the substantive background required to prepare the student for a career in his chosen field. The various programs offered by this Department, all leading to the degree of Bachelor of Arts, are described below. Majors in these programs may complete their general education requirement through courses chosen from departmental offerings, from University courses, or in the programs of Charter College, New College or Allport College (with the proviso that majors in sociology must take SOC 100). The Department accepts all options open to students for satisfying the College requirement in symbolic systems.

## Requirements for Majors in Sociology and Anthropology Programs

1. Major in Sociology. SOC 100 and nine other courses ( 40 credits) in sociology. Of these nine courses, two may be taken in anthropology.
2. Major in Anthropology. AN 101, AN 102, and eight other courses ( 40 credits) in anthropology. Of these eight courses, two may be taken in sociology. (LIN 301, Linguistic Structures, may be substituted for one departmental course.)

## ARTS AND SCIENCES

3. Major in Sociology and Anthropology. SOC 100, AN 101, AN 102, four additional courses ( 28 credits) in sociology, and three additional courses ( 12 credits) in anthropology.
4. Major in Sociology with Concentration in Area Studies. SOC 100, five additional courses ( 24 credits) in sociology, and five courses ( 20 credits) in area studies concentration (South or East Asia). For more information on this program see the concentration in area studies, on pp. 267-270 of this catalog.
5. Major in Anthropology with Concentration in Area Studies. AN 101, AN 102, four additional courses ( 24 credits) in anthropology, and five courses ( 20 credits) in area studies concentration (South or East Asia).
6. Major in Anthropology with Concentration in Linguistics. AN 101, AN 102, three additional courses ( 20 credits) in anthropology, and five courses ( 20 credits) in linguistics. For further information on this program see the concentration in linguistics on p. 178 of this catalog.

## 7. Major in Sociology with Concentration in Linguistics.

a. 6 courses ( 24 credits) in sociology, including SOC 100 and SOC 310. AN 410-Ethnology may be substituted for one course in Sociology.
b. 5 courses ( 20 credits) in linguistics, to be selected in consultation with Linguistics Department adviser.

## 8. Major in Sociology-Anthropology with Concentration in Speech Communication.

Note: Speech Communication (SCN) is the most recently-established academic department in the College of Arts and Sciences. (The Speech Communication Concentration will be of particular value to Sociology-Anthropology majors interested in community service occupations, urban communications, and social studies teaching.)
a. 6 courses ( 24 credits) in Sociology/Anthropology to include SOC 100 or AN 102.
b. 4 courses ( 16 credits) in Speech Communication to include SCN 201, and 371.

## ARTS AND SCIENCES

## Liberal Arts Major in Sociology

## (A Typical Program)

## Semester 1

Learning Skills or
Elective
SOC 100
Distribution Requirement
Distribution Requirement

## Semester 3

SOC Elective
Distribution Requirement
Distribution Requirement
Elective
Semester 5
SOC Elective
Elective
Elective
Elective
Semester 7
SOC Elective
SOC Elective
Elective
Elective

## Liberal Arts Major in Anthropology

(A Typical Program)

## Semester 1

Learning Skills or
Elective
AN 101
Distribution Requirement
Distribution Requirement

## Semester 3

AN Elective
Distribution Requirement
Distribution Requirement
Elective

## Semester 5

AN Elective
Elective
Elective
Elective

Semester 2
Learning Skills or Elective
SOC Elective
Distribution Requirement
Distribution Requirement

## Semester 4

SOC Elective
Distribution Requirement
Distribution Requirement
Elective
Semester 6
SOC Elective
Elective
Elective
Elective

## Semester 8

SOC Elective
SOC Elective
Elective
Elective

## Semester 2

Learning Skills or
Elective
AN 102
Distribution Requirement
Distribution Requirement

## Semester 4

AN Elective
Distribution Requirement
Distribution Requirement
Elective

## Semester 6

AN Elective
Elective
Elective
Elective

## ARTS AND SCIENCES

## Semester 7

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## Anthropology

## AN 101 Evolution of Man and Culture (4 credits)

Introduction to physical anthropology and archaeology as applied to the evolution of man and culture. Stress placed upon man's development in adaptation to his environment.

## AN 102 Man in Culture and Socieły <br> (4 credits)

Introduction to cultural and social anthropology with emphasis placed upon the continuing adaptation of man to his environment and especially the inferactions among culture, society, and natural environment.

## AN 200 Advanced Social Anłhropology <br> (4 credits)

Examines social structure and social organization in anthropological perspective. Entails the study of economic, political, religious, and kinship systems in the social life of man. Prerequisite: AN 102 or permission of the Instructor.

## AN 221 Subsistence and Technology in Non-Industrial Socieły

Subsistence activities and technologies will be considered in relationship to the natural and social setting in which they are practiced. Emphasis will be placed on the adaptation of man to his environment, the variations in that adaptation, and the accommodation of other aspects of culture to the food quest.
Prerequisite: AN 102 or permission of the Instructor.

## AN 231 Child-Rearing in Cross-Cultural Perspective (4 credits)

The cross-cultural diversity of child-rearing practices will be examined, emphasizing their educational role. Stress will be put on non-Western societies. Prerequisite: AN 102 or permission of the Instructor.

## AN 241 Culture and Personality

(4 credits)
Theories of personality are examined in relationship to the concept of culture. The role of culture in defining and treating physical and mental illness is studied. Deviant behavior and its relevance for cultural change will be discussed.
Prerequisite: AN 102 or permission of the Instructor.

## AN 251 Peasant Socieły and Culture

(4 credits)
Studies the peasant as a social type as well as his role in the making of great civilizations. Emphasis placed upon the forces for change in peasant societies, especially in the non-Western world.
Prerequisite: AN 102 or permission of the Instructor.

## AN 261 Survey of African Peoples and Cultures (4 credits)

A general survey of the geography, history, economy, society, religion, and political system of the different indigenous peoples of Africa. Part of the course will cover the events of the period of European contact.
Prerequisite: AN 102 or permission of the Instructor.

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## AN 271 Magic, Witchcraft, and Religion <br> (4 credits)

This course will study man's social and personal interaction with beings, creatures, and forces who manifest powers beyond those of ordinary people. The folk beliefs of non-literate people will be given special attention; the transformation of social systems by religious movements will be investigated; and anthropological theories of magic, witchcraft, and religion will be examined as they relate to these and other topics.
Prerequisite: AN 102 or sophomore standing or above.

## AN 276 Language in Culfure <br> (4 credits)

Language viewed as cultural behavior; its system, acquisition, and use; its relation to history and world view; language as both a reflection of, and influence on, attitudes and behavior; standard languages, social dialects, pidgins, and creoles; writing systems. Identical with LIN 276.
Prerequisite: LIN 176, or AN 101, or AN 102, or permission of the Instructor.

## AN 281 Primate Behavior (4 credits)

Emphasis will be placed on the various bio-social factors which aid the non-human primates (prosimians, monkeys, and apes) in their adaptation to the environment. Obviously, the implications for human behavior will underscore the discussion. In addition, an attempt will be made not only to involve the student in the classroom but also in actual field studies.
Prerequisite: AN 101 or permission of Instructor.

## AN 321 Problems of Social and Economic Change (4 credits)

The role of anthropology in the implementation of programs of socio-economic development is examined, using examples from non-Western areas. The activities of the United Nations and of national governments in the development field are reviewed.
Prerequisite: AN 102 or permission of the Instructor.

## AN/SOC 336 Sex Roles

(4 credits)
A look at male and female "nature" in our own and other societies; comparative analysis of sex roles and status in tribal and class societies; and modern anthropological and sociological theories on sex role and status differences.
Prerequisite: SOC 100 or AN 102 or permission of Instructor.

## AN 340 Culture and Personality in Indian Society (4 credits)

Selected theories of personality are analyzed in relation to national character and to an understanding of Hindu personality and cultural milieu. The persistence of basic Hindu personality and cultural communities is also examined.
Prerequisites: AN 241 or Allport College Introduction to Behavioral Sciences, or permission of Instructor.

## AN 351 Social Anthropology of Selected African Societies

(4 credifs)

Infensive studies of selected societies in Africa. The course will emphasize social anthropology, including social organization and the social process, political systems, kinship, economic organization, and religious systems.
Prerequisite: AN 200 or permission of the Instructor.

## AN 361 Contemporary South Asian Society (4 credits)

A study of contemporary rural and urban society in India and Pakistan. Emphasis is placed on social, economic, political, and religious life, as well as on problems of cultural change.
Prerequisite: AN 102 or UC 066 or permission of the Instructor.

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#### Abstract

AN 371 Cultures of Mesoamerica (4 credits) Reviews anthropological studies of Indian and Mestizo societies in Mexico and Guatemala. This course will examine the separate socio-economic patterns of these two social types and also their integration into a dualistic social system. Prerequisite: AN 102 or permission of the Instructor.


## AN 372 Indians of South America (4 credits)

This course will examine the various adaptations that the native South Americans have made to the different environments that exist in that part of the world. Special South American Indian institutions such as ritual warfare, and dual social organization will be studied. Some of the cultural groups that will be included are: circum-Caribbean tribes and chiefdoms, Andean peasants and herders, tropical forest horticulturalists, Brazilian highland Indians, forest and plains nomads, and southern fishing tribes.
Prerequisite: AN 102 or permission of the Instructor.

## AN 380 Archeology of North America

(4 credits)
A survey course which will examine evolution of native North American cultures (including those of Mesoamerica) from 50,000 B.C. to 1500 A.D. Emphasis will be placed on the development of culture areas due to ecological factors as indicated by the archeological record.
Prerequisite: AN 101 or permission of the Instructor.

## AN 381 Indigenous Peoples of North America (4 credits)

Features selected culture areas of North America, focusing variously on American Indians as well as the Eskimos. Emphasis placed on adaptation to contact with Western cultures.
Prerequisite: AN 102 or permission of the Instructor.

## AN 400 History of Anthropological Theory

(4 credits)
Traces the historical development of theory in anthropology. Emphasis is placed upon recurring problems of theoretical and empirical import to the growth of the discipline as a whole.
Prerequisite: AN 200 or permission of the Instructor.

## AN 410 Communication, Ethology and Man

(4 credits)
Human ethology explores the animal in the human and what prefigures the human in animals. In relating recent ethological (animal behavior) findings and human socio-cultural data, the course will cover such topics as verbal and non-verbal communication, culture or tradition, spatial relationships, sexuality, ritual, group structure and the definition of social situations. Communication, where used as an organizing concept for the course, will be anthropologically defined. No prerequisite.

## AN/SOC 420 Ethnopsychiatry and Medical Sociology

Presents and analyzes cross-culturally the socio-cultural context of cultural deviance, disease and the forms of institutional and medical care. It draws on:
a. The relevance of family relationships and child-rearing practices to disease and the cultural response to disease;
b. Socio-cultural variables in physician-patient, indigenous healer-patient relationship;
c. The sociology of medical institutions and change;
d. The special problems of acculturation and culture change faced by people of emerging countries and America's poor.
Prerequisites: Three (3) Sociology or Anthropology courses.

## ARTS AND SCIENCES

## AN 480 Independent Study and Research (2 or 4 credits)

A tutorial in which the student will pursue a course of reading and research with the instructor. May be repeated only once for credit.
Prerequisites: Major standing in anthropology or related majors and permission of the instructor. Fall, Winter.

## AN 490 Current Problems in Anthropology (2 or 4 credits)

An advanced seminar in which a topic or problem is studied in depth. Each seminar requires students to do independent reading and writing.
Prerequisites: Major standing in anthropology or related majors and permission of the instructor.

## Sociology

SOC 100 Introduction to Sociology (4 credits)
An introduction to the basic principles, concepts, and theories of sociology relating to the study of man as a participant in group life. Particular attention is given to social structure, cultural processes and patterns, socialization and personality development, social stratification, collective behavior, population, and the major institutional areas.

## SOC 200 Introduction to Sociology of Education (4 credits)

Designed primarily for the secondary education major, this course examines the public school system within the context of contemporary social, political, and economic realities. Discusses unionization, the bureaucratic structure of the school, informal organizations within the school, and the special problems of minority groups.
Prerequisites: SOC 100 and ED 224 or permission of the Instructor.

## SOC 201 Population Theory and Problems (4 credits)

Provides an historical analysis of world population growth, focusing upon the relationships among population size, population policy, and social and economic development.
Prerequisite: SOC 100 or permission of the Instructor.

## SOC 202 Character and Social Structure

(4 credits)
A study of the relationship of the individual to society from the point of view of the impact of society upon the individual.
Prerequisite: SOC 100 or permission of the Instructor.

## SOC 203 Social Statistics

(4 credits)
Focuses upon problems of data analysis on the nominal and ordinal levels of measurement. Includes survey sampling, scale and index construction, non-parametric statistics, population indices and statistics, and some elementary model building. Requires the equivalent of high school algebra.
Prerequisite: SOC 100 or permission of the Instructor.

## SOC 205 Sociology of Social Problems

(4 credits)
An introductory survey of social problems in areas such as race relations, poverty, delinquency, and crime; comparison of sociological with journalistic, theological, and political-legal approaches to social problems.
Prerequisite: SOC 100 or permission of the Instructor.

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## SOC 221 Sociology of Crime and Punishment

(4 credits)
A study of the various forms of deviance, from illness and juvenile delinquency to habitual crime; and an analysis of sociological theories developed to explain the phenomenon of crime. A study of modes of control from hospitals to penitentiaries. Prerequisite: SOC 100 or permission of the Instructor.

SOC 231 Racial and Cultural Relations
(4 credits)
A study of racial, national, and religious groups, particularly those of the United States. Emphasis will be placed on their historical development, on special problems of adjustment and assimilation, and on specific present-day problems and trends. Prerequisite: SOC 100 or permission of the Instructor.

## SOC 255 Industrial Sociology

(4 credits)
A study of the relationship between industrial and business organizations and the community; the history of industrial sociology; the study of occupations; the social structure of business and industrial organizations, labor unions, and informal work groups; and the character of occupational life in America. Prerequisite: SOC 100 or permission of the Instructor.

## SOC 260 Urban Sociology

(4 credits)
The social structure, culture, and ecology of early and contemporary urban communities; institutional responses to the problems of modern urban life.
Prerequisite: SOC 100 or permission of the Instructor.

## SOC 280 Directed Readings in Sociology (4 credits)

A tutorial course primarily for non-majors interested in research on a special problem. May not be repeated for credit.
Prerequisite: SOC 100 and permission of the Instructor.

## SOC 300 Social Stratification in Cross-Cultural Perspective

(4 credits)
A course which examines the concepts of class, caste, and race in terms of social conflict and social integration. Students will study these problems in a cross-cultural perspective placing emphasis upon comparative materials.
Prerequisite: SOC 100 and permission of the Instructor.

## SOC 305 Sociology of Religion

(4 credits)
An analysis of the changing relationship between social structure and religion. Comparative materials will be examined from pre-industrial societies, Europe during the Protestant Reformation, and the contemporary United States.
Prerequisite: SOC 100 or permission of the Instructor.

## SOC 306 Philosophical Bases for Social Research (4 credits)

A course in the philosophy of the social sciences beginning with Hume and including the Marxists, the Social Darwinists, the cultural determinists, contemporary functionalism, and phenomenology. Emphasis placed upon the assumptions various schools of thought have made about reality and the constraints imposed by these assumptions for consideration of reality.
Prerequisite: SOC 100 or permission of the Instructor.

## SOC 307 Methods of Social Research

Examines problems and techniques of measurement in contemporary sociological research. Principal concern is with a survey of the diversity of methods available to the sociologist.
Prerequisite: SOC 100 or permission of the instructor.

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## SOC 310 Contemporary Sociological Theory

(4 credits)
A study of contemporary sociological theory starting with Veblen, G. H. Mead, and W. I. Thomas and examining the works of R. K. Merton, Talcott Parsons, Seymour Lipset, William Goode, and S. N. Eisenstadt.
Prerequisite: SOC 100 or permission of the Instructor.

## SOC 311 Classical Sociological Theories

(4 credits)
A study of classical sociological theory stressing the works of Comte, Marx, Durkheim, Pareto, Weber, Simmel, and Freud.
Prerequisite: SOC 100 or permission of the Instructor.

## SOC 330 The Sociology of Youth <br> (4 credits)

A cross-cultural analysis of the emerging youth culture in industrial societies. Emphasis will be placed upon the economic, social, and political consequences for the rest of society of the emergence of this youth culture.
Prerequisite: SOC 100 or permission of the Instructor.

## SOC 335 The Family

(4 credits)
A comparative and historical treatment of the background of contemporary problems of this institution. Function, forms, and processes are discussed.
Prerequisite: SOC 100 or permission of the Instructor.

## SOC 336 Sex Roles in Modern Society

(4 credits)
An examination of the effects of ideological and technological change on the statuses, occupations, and relationships of males and females in various stages of life. Prerequisite: SOC 100 or permission of the Instructor.

## SOC 341 Social Change

(4 credits)
The prediction and explanation of social changes in society. Special attention may be given to such mechanisms of change as crowds, publics, mass movements, social movements, revolutions, wars of national liberation, and total cultural revolutions. Implications for social action are discussed.
Prerequisite: SOC 100 or permission of the Instructor.

## SOC 345 Sociology of International Relations (4 credits)

Principles of subordination and superordination and conditions for cooperation will be studied as they apply to systems of economic and political exchange among nations.
Prerequisite: SOC 100 or permission of the Instructor.

## SOC 355 Sociology of Occupations and Professions (4 credits)

An analysis of the structure of major occupations and especially of the major professions, in terms of their publics, their mandates, their clients, and the career lines they offer. Comparisons between "incomplete professions," such as nursing and undertaking and full-fledged professions are made.
Prerequisite: SOC 100 or permission of the Instructor.

## SOC 360 Political Sociology

(4 credits)
An analysis of the sociological factors which influence the distribution of power within a society. Political communication, the maintenance of consensus, the process of revolution, the structure of political parties, and the emergence of new states will be studied; emphasis will vary according to the research interests of the instructor. Prerequisite: SOC 100 or permission of the Instructor.

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## SOC 370 Communities

(4 credits)
Community is one of the most important and exciting concepts in sociology. The current interest in developing new communities reflects the concern of many to find new and more effective ways of living together. Students will explore the many meanings of the concept and by use of case studies in a variety of settings, learn how some may be relevant to contemporary living.
Prerequisites: SOC 100 or permission of instructor.
SOC/SCN 371 Forms and Effects of Mass
(4 credits) Communication
A critical examination of the role and impact of the mass media in contemporary society. The course emphasizes three aspects of mass communications research and theory, all of which are studied from the viewpoint of the social sciences: the analysis of the objectives and techniques of disseminating ideas and information through the mass media; the evaluation of the influence of the media on the values and policy preferences of a variety of individuals, social groups and institutions; and the design and application of research methods and models for the study of the forms and effects of mass communications.
Prerequisite: SOC 100 or sophomore standing and above.
SOC 380 Sociology of Bureaucracy
(4 credits)
A study of bureaucratic forms of organization. Systematic study of theories of bureaucracy and theories of organizational change.
Prerequisite: SOC 100 or permission of the instructor.

## SOC 392 Comparative Institutions in France and America

(4 credits)
A comparative survey of the cultures and social structures of French society and American society. This course will describe and analyze patterns of kinship, religion, politics, and social stratification.
Prerequisite: SOC 100 or permission of the instructor.

## SOC 400 Education as a Socializing Institution

(4 credits)
Discussion of concepts and methodology appropriate to cross-cultural and social system research on socializing institutions, with particular reference to those of formal education.
Prerequisites: SOC 100, SOC 200 or permission of instructor.

## SOC 402 Small Groups

(4 credits)
Focuses on small group relations as a micro-social system, as the interpersonal locus for personality development, and as the continuing expression of macro-social processes. (Recommended for anyone interested in the systematic analysis of small group relations.)
Prerequisite: SOC 100 or permission of instructor.

## SOC/AN 420 Ełhnopsychiatry and Medical Sociology

Presents and analyzes cross-culturally the socio-cultural context of cultural deviance, disease and the forms of institutional and medical care. It draws on:
a. The relevance of family relationships and child-bearing practices to disease and the cultural response to disease.
b. Socio-cultural variables in physician-patient, indigenous healer-patient relationship;
c. The sociology of medical institutions and change;

## ARTS AND SCIENCES

> d. The special problems of acculturation and culture change faced by people of emerging countries and America's poor.
> Prerequisites: Three (3) Sociology or Anthropology courses.

## SOC 470 Field Studies in Sociology (4 credits)

Course will attempt to develop students' skills of sociological analysis and interpretation through their placement as participant observers in a variety of Detroit Metropolitan social service organizations. Students will meet periodically with instructor for discussion of field activities and of background readings. 8-12 hours/week of field activity will be expected; and written reports of the field study required. Field placements and class meetings to be arranged by instructor. Open only to majors in Sociology-Anthropology.
Prerequisites: Junior standing and completion of any one of the following courses: SOC 200, 221, 231, 255, 260, 300, 335, 355, 380.
SOC 480 Independent Study and Research (2 or 4 credits) A tutorial in which the student will pursue a course of reading and research with the instructor.
Prerequisites: Major standing in sociology and permission of the instructor.
SOC 490 Special Topics in Sociology (2 or 4 credits)
An advanced seminar in which a topic or problem is studied in depth. Each seminar requires students to do independent reading and writing.
Prerequisites: Major standing in sociology and permission of the instructor.

# DEPARTMENT OF SPEECH COMMUNICATION 

Professor:<br>Associate Professor:<br>Donald C. Hildum<br>Adeline G. Hirschfeld, Chairman

The newly established Department of Speech Communication includes a large number of interdisciplinary interests which will be represented in the near future by courses in interpersonal communication, public speaking, rhetoric, voice and articulation, group communication, organizational communication, oral interpretation, theatre, mass media analysis, television and film production, and speech education. A number of these courses will be cross-listed with other departments, and our teaching staff will be supplemented from time to time by members of such other departments as English, Linguistics, Modern Languages, Philosophy, Psychology and Sociology.

Understanding and competency in the communication process complements almost any of the existing curricula at Oakland University and enhances opportunities for success in all professions where human interaction occurs. Some of these professions are teaching, public relations, law, personnel, industrial communications, advertising, government and social service, as well as the specific communication industries such as, television, films, and journalism. These opportunities are especially timely for women students, now that the teaching profession is absorbing fewer graduates. Fortunately, new fields such as public administration and management are opening up to women, fields in which the ability to convert "personal knowledge and experience into social currency" or mastery of speech communication are at a premium.

Some subspecialities in speech communication require graduate degrees, such as speech pathology and audiology. With the proposed offerings, graduates of Oakland University can expect to meet requirements for entrance into these graduate programs.

## Speech Communication and the General Education Distribution Requirement

All Speech Communication (SCN) courses satisfy the General Education Distribution Requirement within the Social Science field group with the exception of SCN 310 crosslisted with PHL 365, Philosophy of Rhetoric, which falls within the Letters group.

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## Concentrations in Speech Communication

Presently, students may concentrate in SCN with modified majors in Linguistics, Political Science, Psychology, and Sociology. Also, on its way to implementation is a minor in speech education for secondary teachers.

Major in Linguistics with a Concentration in Speech Communication

The Speech Communication concentration for the Linguistics major requires:
(a) six courses (24 credits) in linguistics including LIN 301 Linguistic Structures
Any two of,
LIN 260 Biolinguistics
LIN 277 Sound Patters of American English
LIN 335 Psycholinguistics
Any two of,
LIN 401 Phonetics
LIN 404 Grammatical Analysis
LIN 407 Semantic Theory
One elective
(b) Five courses (20 credits) in Speech Communication including SCN 201
SCN 303 highly recommended

## Major in Political Science with a Concentration in

 Speech CommunicationThe Speech Communication concentration for the Political Science major requires:
(a) Six courses (24 credits) in Political Science
(b) Four courses (16 credits) in Speech Communication

With this combination students can prepare for government service, pre-law, politics, and careers in the media.

## Major in Psychology with a Concentration in Speech Communication

The Speech Communication concentration for the Psychology major requires:

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(a) Six courses (24 credits) in psychology, including PSY 146 Foundations of Contemporary Psychology UC 54 Introduction to Social Psychology

Any two of:
PSY 320 Theories of Personality
PSY 350 Motivation
PSY 351 Learning, Memory, Thinking
PSY 352 Sensation and Perception
Either:
PSY 335 Psycholinguistics
PSY 435 Psychology of Communication
(b) Four courses ( 16 credits) in Speech Communication, including: SCN 201

This curriculum provides preparation for careers in the helping professions, particularly where one-to-one and small group work is required.

## Major in Sociology with a Concentration in Speech Communication

The Speech Communication concentration for the Sociology major requires:
(a) Six courses ( 24 credits) in Sociology including:

UC 058 Introduction to Sociology
AN 410 Ethology, which may be substituted for one course in Sociology
(b) Four courses (16 credits) in Speech Communication, including:

SCN 201 Effective Speech Communication
SCN 371 Forms and Effects of Mass Communication
With this combination, students are prepared for a wide range of career possibilities in community service occupations, urban communications, and social studies teaching.

## SCN 121 Speech Laboratory

Improvement of oral or speech skills in the context of the total linguistic experience, including reading, writing, and listening comprehension, with emphasis on oral composition, vocabulary, grammar, pronunciation, and articulation. Activities designed to meet individual needs. May be taken for three semesters of credit.
SCN 200 Topics in Speech Communication
(4 credits)
Topics and problems selected by the instructor, an opportunity for personnel in other disciplines to offer courses in specialized interest or on topics of current relevance.

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SCN 201 Effective Speech Communication (4 credits)
Theory and practice in communication with emphasis on the adaptions required by particular goals, audiences and occasions. Through the researching, organizing, writing, and delivery of classroom and extraclassroom communications, students are prepared for a variety of communicative situations and needs. Videotaped student speeches and classroom interaction aid in identifying, and thereby correcting or enhancing, individual personality and delivery characteristics. Offered every semester.
SCN 202 Group Dynamics and Communication (4 credits)
Group dynamics, discussion, problem solving; influence of group structure, norms, roles, leadership, and climate on the processes of group communication and collaborative decision making. Offered every two years.

## SCN/LIN 207 Semantics

(4 credits)
A study of the processes which occur when the mind makes meaningful interpretations of the signs and symbols of messages and languages. Offered every year.

## SCN 230 Voice and Articulation

(4 credits)
Theory and applications in voice, articulation and pronunciation. Offered every two years.

## SCN 301 Persuasion

(4 credits)
Analysis of persuasion in current society; psychological bases of persuasion; ethical considerations; and distinctions between debate and persuasive argument. Offered every year.

## SCN 303 Introduction to Communication Theory

(4 credits)
Models of the communication process, principles of coding and translation, and sanity in communication. The use of personal and impersonal channels, and the significance of their verbal and non-verbal modes, in communicating in various forms, to different ends, in situations ranging from the intrapersonal to culture-wide.

## SCN 304 Oral and Written Communication in Organizations

(4 credits)

Communication theory and practice within the context of the organizational system of interdependent individuals and groups. Offered every two years.

## SCN 305 Interpersonal Communication

(4 credits)
The elements, purposes, and patterns of interpersonal communication and the effects of these on the persons involved. Dynamics in one-to-one relationships, such as interviewing, futoring, community service. Offered every year.

## SCN 310/PHL 365 Philosophy of Rhetoric

(4 credits)
This course will attack head-on the problem of "objectivity," examining various philosophical justifications for a distinction between persuasion and proof, between propaganda and information, etc., and the consequences of denying such a distinction. The tendency for people with certain positions to use certain types of arguments would also be explored. Readings will include Plato's Gorgias, Aristotle's Rheforic, and several recent books and articles on reasoning and communication. Offered every two years.
SCN 311 Rhetorical Analysis and Speech
(4 credits) Composition
Principles and methods of oral composition, emphasizing the content, arrangement,

## ARTS AND SCIENCES

and style of public address with application in the construction and delivery of public speeches. Prerequisite: SCN 201. Offered every two years.

## SCN 320 Speech Communication for the <br> (4 credits)

 Elementary TeacherLinguistic development of the child (emotional, physical and cognitive) as it relates to symbol-using behaviors, and methodology relating to specific communicative objectives. Offered every two years.

## SCN 321 Speech Communication for the Secondary Teacher

(4 credits)

Principles and practices designed to improve the speech habits of the teacher, to supply special skills for classroom and professional use to assist prospective teachers in acquiring basic, usable, techniques for speech improvement in the classroom. Offered every two years.
SCN 350 Oral Interpretation and Reader's
(4 credits)

## Thearre

Analysis of selected prose, poetry, and drama, and the oral communication of such literature for its intellectual, emotional, and aesthetic effects. Offered every year.

## SCN 371/SOC 371 Forms and Effects of Mass (4 credits) Communication

A critical examination of the role and impact of the mass media in contemporary society. The course emphasizes three aspects of mass communications research and theory, all of which are studied from the viewpoint of the social sciences: the analysis of the objectives and techniques of disseminating ideas and information through the mass media; the evaluation of the influence of the media on the values and policy preferences of a variety of individuals, social groups and institutions; and the design and application of research methods and models for the study of the forms and effects of mass communications. Offered every year.

## SCN 372 Reporting Public Affairs

(1 or 2 credits)
Intensive practical training in the interpretation, writing and presentation of information and ideas through news, editorial and feature articles, with special emphasis on the political and social issues relevant to community publications. The specific format, topics and projects may differ from semester to semester, depending on the needs and background of those enrolled. Special individual projects may be arranged at the discretion of the instructor. The course may be taken for one or two credits per semester, and may be taken more than once but for no more than a total of four credits. Offered every year.

## SCN 402/SOC 402 Small Groups

(4 credits)
This focuses on small groups relationships as micro-social systems, as the interpersonal locus for personality development, and as the continuing expression of macro-social processes. Recommended for anyone interested in the systematic analysis of small group relationships.
Prerequisite: US 058 or permission of the Instructor.

## SCN 420/ED 590 Extemporaction

(4 credits)
Theory and applications of experiential methods of teaching such as simulation, improvisation, roleplaying, sociodrama, creative dramatics, story theatre and educational games. Offered every year.

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(Comment: The above course is based upon research and materials developed under an Elementary and Secondary Education Act, Title III grant directed by Mrs. Hirschfeld at Oakland University from 1966 to 1968.)

SCN 430/LIN 401 Speech Science (4 credits)
The physical aspects of speech symbols, their production and reception. Offered every two years.

SCN 460 Theatre Production for School and
(4 credits) Community
Theatre production coordination, including such aspects as choice of scripts, casting, direction, staging, lighting, costuming, box office, and publicity.

SCN 490 Independent Study
Special research projects in speech communication.

## ARTS AND SCIENCES

## INTERDEPARTMENTAL PROGRAMS AND COURSES

## THE AREA STUDIES PROGRAM

## COMMITTEE ON AREA STUDIES

Robert C. Howes (History - Russia), Chairman
Peter J. Bertocci (Anthropology - India)
Edward J. Heubel (Political Science - Latin America)
Harold G. Lawrence (History - Africa)
James R. Ozinga (Political Science - Russia)
Amitendranath Tagore (Modern Languages)
S. Bernard Thomas (History - China)

The area studies program is dedicated to the understanding of living civilizations whose various aspects - language, history, government, social organization, literature, and so on - form the basis of studies primarily within the traditional departments. A concentration in area studies might be considered by any student who seeks an integrated view of a civilization out of intellectual curiosity as well as by the student who looks forward to a career in government service or journalism, to foreign residence or work, or to graduate study with an area emphasis. At present, Oakland University offers area programs in East Asian studies (China and Japan), South Asian studies (India and Pakistan), Slavic studies (Russia and Eastern Europe), and Latin American studies. A similar program in African studies may be pursued as an independent concentration. (See p. 95 for descriptions of introductory area studies courses.)

Area concentrations are available only on a joint basis with a department and consist of a modified departmental major combined with a concentration in area studies, including work in the language of the area. Concentrations are now offered in combination with the Departments of Art, History, Modern Languages and Literatures, Philosophy, Political Science, and Sociology and Anthropology. Appropriateness in combining an area specialization and a department, and the suitability of specific course requirements for a joint degree, depend in large measure upon the interests and the career plans of each student.

## I. Programs Offered by the Language and Area Center for East Asia

(The China program is offered by Oakland University's Language and Area Center for East Asia, established in 1965 with the support of a continuing grant from the U.S. Office of Education.)

## FACULTY OF THE CENTER

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Robert C. Howes, Chairman
Sheldon L. Appleton (Political Science)
Ralph F. Glenn (Art)
Janet A. Krompart (East Asian Librarian)
Robert J. Krompart (History)
John Marney (Chinese Language and Literature)
Paul M. Michaud (History)
Shih-Chen Peng (Chinese Language and Literature)
John E. Rue (Political Science)
I. Michael Solomon (History)
Amitendranath Tagore (Chinese Language and Literature)
S. Bernard Thomas (History)
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## COURSE OFFERINGS

(For detailed course descriptions, see entries under individual departments.)

## Chinese Language and Literature courses

(See Modern Languages and Literatures.)
AH 300 Oriental Art
AH 301 Japanese Art
AH 302 Buddhist Art
AH 400 Chinese Art
AH 401 Japanese Painting
AH 403 Asian Ceramics
HST 277 Japan to 1800
HST 278 Japan since 1800
HST 370 China: Beginnings to Mid-T’ang, ca. 750

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\begin{array}{llll}\text { HST } & 371 & \begin{array}{l}\text { China: Mid-T’ang to the Peak } \\
\text { of Manchu Power, ca. } 1880\end{array}
$$ <br>

HST \& 373 \& Nineteenth Century China\end{array}\right]\)| HST | 374 | Nationalism and Communism in China |
| :--- | :--- | :--- |
| HST | 375 | Topics in Chinese Intellectual History |
| PHL | 250 | Philosophies and Religions of Asia |
| PHL | 351 | Chinese Philosophy |
| PS | 338 | Modern Chinese Politics |
| PS | 339 | Sino-Soviet Relations |
| AS | 381 | Seminar in East Asian Studies |
| AS | 390 | Directed Readings in Area Studies |
| AS | 490 | Directed Research in Area Studies |
| (See | pp. $273-274$ for descriptions of AS 381, 390, and 490.) |  |

## PROGRAM OPTIONS AND REQUIREMENTS

Admission to the following programs in East Asian studies requires successful completion of UC 062 or UC 063, two semesters ( 10 credits) of Chinese, and major standing within a cooperating department. Interested students should consult with the director of the East Asia Center as early in their college careers as possible. For the specific program options and requirements see below.

## Major in Chinese Language and Civilization

The requirement in Chinese for this major is eight courses (36 credits) ordinarily CHE 114-115, 214-215, and four others selected from departmental offerings in consultation with an adviser. Five area courses ( 20 credits), selected from the above list and including AS 490, are also required.

## The Concentration in East Asian Studies

The concentration is offered in combination with a modified departmental major in anthropology, history, political science, philosophy, or sociology. The requirements are: six courses ( 24 credits) in the major department, two years ( 20 credits) of Chinese language, and five additional area courses ( 20 credits) from the above list, including AS 490.

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## II. The South Asian Studies Program <br> FACULTY

Peter J. Bertocci (Sociology and Anthropology), Coordinator Richard W. Brooks (Philosophy)
Carlo Coppola (Linguistics and Modern Languages)
Susan Hadden (Political Science)
John Hurd II (Economics)
Paul M. Michaud (History)
Munibur Rahman (Modern Languages)
Amitendranath Tagore (Modern Languages)
Richard P. Tucker (History)

## COURSE OFFERINGS

(For detailed course descriptions, see entries under individual departments.)

Hindi-Urdu Language and Literature courses
(See Modern Languages and Literatures.)
(In special cases Sanskrit or Bengali may constitute an alternative to Hindi-Urdu, with consent of the coordinator of South Asian studies.)

AH 300 Oriental Art
AH 302 Buddhist Art
AH 403 Asian Ceramics
AN 361 Contemporary South Asian Society
ECN 223 The Indian Economy
HST 280 History of Southeast Asia
HST 282 Introduction to the History of India
HST 381 History of Early India
HST 382 Mughal and British India, 1526-1860
HST 383 The Nationalist Era in India and Pakistan, 1860-1960
PHL 250 Philosophies and Religions of Asia
PHL 352 Indian Philosophy
PS 334 Political Systems of Southern Asia

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SOC 300 Social Stratification in Cross-Cultural Perspective
AS 382 Seminar in South Asian Studies
AS 390 Directed Readings in Area Studies
AS 490 Directed Research in Area Studies
(See pp. 273-274 for descriptions of AS 382, 390, and 490.)

## The Concentration in South Asian Studies

The concentration is offered in combination with a modified departmental major in anthropology, history, political science, philosophy, or sociology. The requirements are: six courses ( 24 credits) in the major department, two years ( 20 credits) of an Indian language, and five additional area courses ( 20 credits) from the above list, including AS 490.

Formal admission to the concentration requires completion of UC 066, two semesters ( 10 credits) of an Indian language, and major standing within a cooperating department. Interested students should consult with the coordinator of South Asian studies as early in their college careers as possible.

## III. The Slavic Studies Program

 FACULTYJames R. Ozinga (Political Science), Coordinator
Lee M. Corrigan (Russian Language and Literature)
Jerry M. Freeman (Russian Language and Literature)
Alice Gorlin (Economics)
Robert C. Howes (History)
Dmytro Ijewliw (Russian Language and Literature)
Helen Kovach (Russian Language and Literature)
Lawrence D. Orton (History)

## COURSE OFFERINGS

(For detailed course descriptions, see entries under individual departments.)

## Russian Language and Literature courses

(See Modern Languages and Literatures.)

## AH 320 Byzantine Art

HST 251, 252 Introduction to Russian History


## Major in Russian Language and Civilization

The requirement in Russian for this major is eight courses (36 credits), ordinarily Russian 114-115, 214-215, and four others selected from departmental offerings in consultation with an adviser. Five area courses ( 20 credits) selected from the above list and including AS 490 are also required.

## The Concentration in Slavic Studies

The concentration is offered in combination with a modified departmental major in anthropology, history, political science, philosophy, or sociology. The requirements are: six courses (24 credits) in the major department, two years ( 20 credits) of Russian language, and five additional area courses ( 20 credits) from the above list, including HST 251 or 252, PS 337, and AS 490.

## ARTS AND SCIENCES

## IV. The Latin American Studies Program FACULTY <br> \author{ James W. Dow (Anthropology) <br> <br> Mary C. Karasch (History) <br> <br> Richard A. Mazzara (French, Portuguese) <br> <br> Kathryn McArdle (Spanish) <br> <br> Mariano Pallarés (Spanish, Portuguese) <br> <br> Colin A. Palmer (History) 

 <br> Edward J. Heubel (Political Science), Coordinator William C. Bryant (Spanish)}
## COURSE OFFERINGS

(For detailed course descriptions, see entries under individual departments.)

Spanish and Portuguese Language and Liferafure courses
(See Modern Languages and Literatures.)
AH 204 Pre-Columbian and American Indian Art
AN 371 Cultures of Mesoamerica
ECN 326 Economic Development
FRH 287 Studies in Black Literature Written in French
HST 261, 262 Introduction to Latin American History
HST 366 Slavery and Race Relations in the New World
PS 335 Politics of Latin America
PS 336 U.S.-Latin American Relations
SPN 286 Survey of Latin American Literafure (in translation)
SPN 462, 463 Spanish American Literałure I and II
AS 385 Seminar in Latin American Studies
AS 390 Directed Readings in Area Studies
AS 490 Directed Research in Area Studies
(See pp. 273-274 for descriptions of AS 385, 390, and 490.)

Major in Latin American Languages and Civilization
The requirement in Spanish for this major is a minimum of six courses ( 24 credits) beyond SPN 214-215 selected from depart-

## ARTS AND SCIENCES

mental offerings in consultation with an adviser. Five additional courses ( 20 credits) selected from several departments as represented in the above list and including AS 490 are also required.

An alternative language requirement for this major is four courses ( 16 credits) in Spanish beyond SPN 214-215, and three courses ( 15 credits) in Portuguese language and literature. Other combinations of languages used in Latin America, such as French, (with Spanish), will be considered.

## The Concentration in Latin American Studies

The concentration is offered in combination with a modified departmental major in anthropology, history, political science, philosophy, or sociology. The requirements are: six courses (24 credits) in the major department, two years ( 20 credits) of Spanish language and six area courses (24 credits) including (UC 068), Introduction to Latin America, and (AS 490). The remaining 16 hours are to be drawn from the list of courses above to complete the area component of the major.

## V. Interdepartmental Courses Offered Towards the Area Concentrations

AS 381 Seminar in East Asian Studies (4 credits)
Offered to supplement departmental area courses. An intensive study of selected fopics dealing with East Asia. May be taken more than once.
Prerequisite: Permission of the Instructor.
AS 382 Seminar in South Asian Studies (4 credits)
Offered to supplement departmental area courses. An intensive study of selected topics dealing with South Asia. May be taken more than once.
Prerequisite: Permission of the Instructor.
AS 383 Seminar in Slavic Studies
(4 credits)
Offered to supplement departmental area courses. An intensive study of selected topics dealing with the Slavic area. May be taken more than once.
Prerequisite: Permission of the Instructor.

## AS 384 Seminar in African Studies

(4 credits)
Offered to supplement departmental area courses. An intensive study of selected topics dealing with Africa. May be taken more than once.
Prerequisite: Permission of the Instructor.
AS 385 Seminar in Latin American Sfudies (4 credits)
Offered to supplement departmental area courses. An intensive study of selected topics dealing with Latin America. May be taken more than once. Prerequisite: Permission of the Instructor.

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## AS 390 Directed Readings in Area Studies <br> (4 credits)

Readings from diverse disciplines with focus on a student's area of specialization. Conducted on a tutorial basis by an instructor chosen by the student. Requires approval of the chairman of the Committee on Area Studies prior to registration.
Prerequisites: Permission of the Department and the Instructor.

## AS 490 Directed Research in Area Studies (4 credits)

Research relating to the student's area of specialization including completion of a senior essay or research paper. May be offered as a seminar or as a tutorial. Supervised by an instructor from the area studies staff. Approval of the instructor and of the chairman of the Committee on Area Studies are required prior to registration. Prerequisites: Senior standing, admission to an area concentration, and permission of the Department and the Instructor.

## CONCENTRATION IN COMPUTER AND INFORMATION SCIENCE

In addition to usage in the natural sciences, business, and engineering, the digital computer now finds wide application in the social sciences, arts and letters, and education. The main objective of the Computer and Information Science Concentration is to provide an opportunity for students in the natural sciences, economics and management, education, the social sciences, arts and letters and engineering to add preparation in the area of computers to their major field of study. The student, in consultation with the Concentration Committee, would shape the Concentration to fit his or her needs. The background achieved in this way would allow students to develop computer applications for problems in their area of specialization, thereby preparing them for research in their major field of study, for positions in industry and government, and for further academic work.

The Concentration in Computer and Information Science is not a degree granting program. Instead it augments other major fields of study, giving the students access to a very powerful and flexible means of approaching problems. Although the problems may be very diverse, the computer approaches to them exhibit unity. Computer Science deals with the principles underlying the approach to various problems. This new concentration allows students to assemble sounder and more attractive programs within the existing framework of major areas of study.

It is intended that the Concentration be broadly interdisciplinary in outlook such that students from a wide variety of majors may choose meaningful programs within the Concentration. For example, with a major in mathematics, physics, chemistry, biology or engineering, a student may wish to emphasize numerical and

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scientific computing aspects of Computer and Information Science. With a major in English, modern languages, linguistics, psychology, sociology, anthropology or history, a student may wish to take courses in the Concentration that emphasize non-numerical and symbolic data processing, language translation, data structures and list processing. With a major in economics and management, a student may wish to take courses oriented toward application of computers in economic analysis or management sciences.

The Concentration is available on a joint basis with a cooperating department in the College of Arts and Sciences, the School of Economics and Management, the School of Education, the School of Performing Arts or within the School of Engineering.

For further details on requirements and courses, see pp. 347 348, 354-356.

## CONCENTRATION IN ENVIRONMENTAL STUDIES COMMITTEE ON ENVIRONMENTAL STUDIES

## Paul Tomboulian (Chemistry), Chairman

The Environmental Studies program is intended to introduce students to modes of thought and action relative to environmental issues. Emphasis is on the application of knowledge to the solutions, or approaches to the solutions of environmental problems. Thus the program does not offer a major, but concentrations are available in conjunction with existing majors in other departments. Programs of individualized independent study and field work are a frequent feature of these concentrations. Interested students are encouraged to consult with their major department, or the program coordinator.

## ENV 151 Introduction to Environmental Studies (4 credits)

A general introduction to selected social and political aspects of typical environmental issues. Topics chosen from current literature and taught predominantly by social science faculty. (This course may be used to satisfy part of the Distribution Requirement in social science.)
ENV 181 Introduction to Environmental Studies (4 credits) A general introduction to selected scientific and technical aspects of typical environmental issues. Topics chosen from current literature and taught predominantly by science faculty. (This course may be used to satisfy part of the Distribution Requirement in natural science.)
ENV 182 Introduction to Environmental Studies (4 credits) A course complementing ENV 181, dealing with selected specialized studies of resource uses and management.
ENV 212 Energy and Environment
(4 credits)
Basic facts of energy: its forms and conversions. Role of energy flow in the bio-

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sphere: its source, utilization, and sinks. Man's utilization of energy: the advantages and disadvantages. Problems of energy conversion in the immediate future.

## ENV $305 \quad$ Selected Topics (2, 4, 6, or 8 credits)

Studies in special areas, often individually arranged. May be repeated for credit. Preparation of study plan and approval of the instructor listed is required prior to registration.

## ENV 372 Air Qualify

(4 credits)
A technical evaluation of the nature and composition of the earth's atmosphere, both in its natural stafe and as it has been affected by man. Some discussion of methods of air pollution control will be included.
Prerequisite: One year of chemistry desirable.

## ENV 373 Waier Quality

(4 credits)
A technical introduction to the nature and composition of all types and bodies of water, including streams, rivers, lakes, and oceans. Some discussion of water pollution control will be included.
Prerequisite: 1 year of chemistry.

## CONCENTRATION IN PREMEDICAL STUDIES

Students intending to pursue careers in the medical or dental professions are expected to complete the concentration in premedical studies. The concentration consists of a series of courses in biology, chemistry, mathematics, and physics intended to satisfy the minimum requirements for admission to the various medical and dental schools in Michigan and elsewhere. In general, the concentration is completed with the following courses:
(a) Biology: 3 courses ( 15 credits), including laboratories.
(b) Chemistry: 4 courses ( 20 credits), including laboratories.
(c) Mathematics: 2 courses ( 8 credits).
(d) Physics: 2 courses ( 10 credits), including laboratories.

The premedical studies concentration does not constitute a major. Students must select a major from among those offered by the University. Each student in the concentration will be assigned a premedical adviser who will assist the student in planning his or her academic program for as long as the student is enrolled in the concentration.

## CONCENTRATION IN RELIGIOUS STUDIES

COMMITTEE ON RELIGIOUS STUDIES
Richard J. Burke (Philosophy), Chairman
James W. Dow (Anthropology)
William C. Fish (Education)
Leo V. Gerulaitis (History)
Donald E. Morse (English)

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## Other faculty members associated with the Program in 1972-1973:

Donald C. Hildum (Speech Communication and Psychology)
Charles E. Morton (Philosophy)
Richard W. Brooks (Philosophy)
William Brewster (New College)
Richard P. Tucker (History and South Asian Studies)
Charles W. Akers (History)
Munibur Rahman (Modern Languages)
William D. Jaymes (Modern Languages)
The Religious Studies Program offers a series of courses on religion, both Western and Eastern, both traditional and contemporary. These courses do not seek to confirm or attack any particular religious point of view; they are taught in the same scholarly and objective spirit as the other courses in the University, and aim at understanding a pervasive human phenomenon. They are grouped into two types of courses: historical studies and systematic studies (see below). 200-level courses require sophomore standing ( 28 or more credits); $300-$ level courses require this also, plus one previous course in Religious Studies at Oakland.

At present, the Program offers a Concentration in Religious Studies, consisting of at least 20 credits in Religion, which must be taken jointly with a modified major ( 24 credits) in either Philosophy or Sociology-Anthropology. It is expected that several other combinations will be available soon, and that Religious Studies will become a Department offering a full major in two or three years. In the meantime, students wishing to make Religion the focus of an Independent Concentration will receive the support of the Committee on Religious Studies.

## Policy regarding transfer credits

Credit will generally be given for courses taken in accredited colleges when the content of those courses is demonstrably similar to the content of a course offered in the Religious Studies Program of Oakland University. Credit will generally not be given for courses taken at an unaccredited institution or for courses with a content for which Oakland University has no reasonable substitute. The content, not simply the title, of the course must be described by a student seeking transfer of credits.

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## Course Offerings

## Historical Studies:

## REL 200 Topics in the Historical Study of Religion

The topic varies. Sample topics include: The New Testament, Medieval Mysticism, Early Buddhism, The Protestant Reformation, Christ and Caesar, 18th and 19th Century Attacks on Religion. May be repeated for credit.

## REL 201 Religions of the Ancient World

Myths, rituals, and religious ideas in the ancient Near East, Greece, and Rome. Offered every two years.

## REL 202 The Jewish Tradition

Selected ideas and institutions in the development of Judaism from its pre-exilic roots to the present. Identical with PHL 202. Offered every two years.

## REL 203 The Christian Tradition

Study of the most important Christian ideas and institutions from Jesus to the present. Offered every two years.

## REL 204 The Islamic Tradition

Selected ideas and institutions in the history of Islam. Offered every two years.

## REL 211 Old Testament Literature

A study of the types of literature found in the Old Testament. Identical with ENG 211 and CLS 211. Offered every two years.

## REL. 250 Philosophies and Religions of Asia

A study of the major religions of India, China, and Japan with emphasis on their philosophical significance. The course will cover Hinduism, Jainism, Confucianism, Taoism, and Buddhism (with special reference to $\mathrm{Ch}^{\prime}$ an or Zen) and will deal with both the ancient traditions and some modern developments. Identical with PHL 250. Offered every year.

## REL 287 American Religious History

A study of the religious history of the American people with an emphasis on social aspects. Within the general outline of chronological development, attention is given to such selected topics as Religious Elements in Immigration, the Separation of Church and State, Denominationalism and Sectarianism, Religion and Nationalism, Religious Leadership, and Religion as an influence in Social Change. Identical with HST 307. Offered each winter.
Prerequisites: Two courses in American history, or permission of Instructor.

## Systematic Studies:

## REL 220 Topics in the Systematic Study of Religion

The topic varies. Sample topics include: Mythology, Psychoanalysis and Religion, Religion and Education, Types of Religious Communities, Shamanism, the Hero. May be repeated for credit.

## REL 225 Philosophy of Religion

Examination of arguments for and against the existence of God, the nature of religious language, the role and structure of religious concepts, the relations between religion and philosophy. Identical with PHL 225. Offered every two years.

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## REL 227 Psychology of Religion

Basic data of religious experience in its relation to motivation, cognitive structure, and personality; problems of religious symbolism, verbal and nonverbal; dynamics of religious movements; growth, propagation, and preservation of orthodoxy; varieties of reform. Offered every two years.

## REL 229 Religion and Literature

Study of a few masterpieces of world religious literature, such as Greek tragedy, Hindu epic, Dante, Milton, with an attempt to generalize about the use of religious themes in literature, and about literature as an expression of religious belief. Offered every two years.

## REL 271 Magic, Witchcraft, and Religion

A study of man's social and personal interaction with beings, creatures, and forces who manifest powers beyond those of ordinary people. The folk beliefs of non-literate people will be given special attention; the transformation of social systems by religious movements will be investigated; and anthropological theories of magic, witchcraft, and religion will be examined as they relate to these and other topics. Identical with AN 271. Offered every two years.

## REL 275 Sociology of Religion

An analysis of the changing relationship between social structure and religion. Comparative materials will be examined from pre-industrial societies, Europe during the Protestant Reformation, and the contemporary United States. Identical with SOC 305. Irregularly scheduled.
Prerequisite: UC 058 or permission of the Instructor.

## REL 390 Directed Readings in the Study of Religion

Individual study of a topic not covered by regular courses, with the guidance of a faculty tutor.
Prerequisite: Consent of the tutor.

## Suggested collateral courses:

CLS 312: Classical Mythology. Identical with ENG 312.
HST 325: Medieval Europe.
HST 397: The Second Jewish Commonwealth. Identical with CLS 397.
PHL 205: Hellenistic and Medieval Philosophy.
PHL 355: Existentialism.

## SOCIAL STUDIES PROGRAM

## Requirements for the Secondary Teaching Major in Social Studies

This major is intended for students who plan to teach social studies in junior or senior high school and is designed to provide a broad background in the social sciences and related fields. This program is currently undergoing extensive revision. More work in a variety of social sciences, more options for major and minor

## ARTS AND SCIENCES

concentrations, and the introduction of field service components in many courses are part of the changes now taking place. Social Studies 100, Introduction to Social Sciences is required as the basia course in the program. This course may be used to satisfy the general education distribution requirement in Social Science. Students interested in a social studies teaching major should consult with the Program Director so that they may plan their course work in proper sequence.

## Requirements for the Teaching Minor in Social Studies

The minor requires a minimum of 24 credits selected from courses offered by the social science departments or courses in area studies, geography, or history and philosophy. Students majoring in history who wish to elect a social studies minor must confer with the Office of the Director of the Social Studies Program.

SS 100 Introduction to Social Sciences (4 credits)
This introductory course to an interdisciplinary program in social science provides an overview of the philosophical and historical development of individual social science disciplines (psychology, sociology, anthropology, political science, history, economics, and geography). Students examine key concepts, methods, and scholarly literature in these fields and apply their work to selected current issues through interdisciplinary models.

## SS 570 Social Studies in the Elementary School

(4 credits)
An intensive study of current trends, challenges, characteristics, and content of effective social studies programs, with emphasis on the relationships among discipline areas comprising the social studies. The course will stress application of these studies in urban area elementary schools.
Prerequisites: Education 245 and acceptance into a graduate or certification program or major standing in elementary education.

## OTHER CONCENTRATIONS

For other concentrations associated with major programs please see departmental program descriptions.

## OFF-CAMPUS STUDY PROGRAMS

Oakland University offers a variety of opportunities for offcampus study. They include participation in overseas study programs, the field term semester offered to students of New College, an independent study program, and a Community Service course sequence.

There have been six one-semester overseas study programs sponsored by the University in the last four years, including pro-
grams in Mexico, Hong Kong, and various areas of western Europe. No department or curriculum at Oakland requires students to study abroad at any time, nor does any department sponsor a regular agenda of overseas study programs. Rather, the departments and faculties sponsor these programs on an ad hoc basis, the time and format of the individual projects reflecting the interests and qualifications of the faculty sponsors and the student participants. Proposals for overseas study programs are reviewed by the Committee on Overseas Study Programs, which counsels the prospective faculty and student participants on the ways and means of maximizing the benefits of such programs; helps the faculty sponsors design proposals consistent with the general standards of the University; and helps departmental chairmen, deans, and the Provost assess the relevance, quality, and feasibility of such proposals.

A special off-campus program is part of the curriculum of New College and is open only to students of that college. This field term component, implemented in the second semester of the sophomore year, entails individually designed work-study projects.

A third option is an off-campus independent study program open to all students in good standing who have successfully completed two semesters at Oakland University. This program allows a student to propose his or her own course of study for the semester offcampus, provided he or she has received the support and the involvement of three faculty members and the approval of the dean. The following standards and procedures apply to this program:
(1) Any undergraduate student in good standing will be eligible to participate in the program after the completion of two semesters in residence.
(2) A written proposal describing a course of activity will be prepared by a student applicant prior to beginning the program.
(3) This proposal and the off-campus work it describes must receive the support and involvement of at least three members of the faculty and the approval of the dean.
(4) All arrangements for off-campus work must be completed and filed by the end of the advising period in the semester preceding the semester of off-campus study.
(5) It is expected that part of the preparatory work will include the designation of course equivalents totaling at least eight credits for the independent study to be accomplished. This is to be effected by negotiation with the supporting faculty members.

## ARTS AND SCIENCES

(6) Whenever credit is sought toward the completion of a major, the department, through its chairman, must agree to the value of the independent work.
(7) The Dean of Students' Office will require a release from parents absolving the University of responsibility for the well-being of students under twenty-one years of age while they are participating in off-campus independent study.
(8) The initial approval of a program for a student will be for one semester with the provision that the student may request an extension of the program for additional semesters.
(9) The student must be registered at Oakland University and pay the required fees during the period of independent study.

A course sequence entitled CS 201-202 (Community Service) ( 8 credits each) represents a fourth alternative for off-campus learning. See p. 283 for course descriptions.

Both 8 -credit courses are devoted primarily to volunteer service activities in Oakland, Wayne, and Macomb Counties. A regular but modified schedule of class meetings and a series of academic assignments are also required to support the experiential servicelearning in the field. Students work approximately 10 to 15 hours a week in a service activity of their own interest, as approved by the instructor and the placement coordinator of the program. Placements will be made with groups, organizations, and agencies concerned with various aspects of the social, political, psychological, educational, and ecological needs and interests of the community.

Community Service is open to all students who have completed at least 28 credits and compiled a cumulative grade point average of 2.0 , or who have received the permission of the instructor and the placement coordinator. The course will be graded on an "S" (Satisfactory) or " N " (No grade) basis.

The program is not intended to serve the disciplinary or vocational interests of students. Rather students will be encouraged to pursue community service activity in general, and specific placements in particular, primarily in terms of how such activities can better serve their desire to integrate reflection and action, their interest in a broad concept of general education, and their personal rather than disciplinary motivation to make a contribution to responding to community need. Students will work under the direction of a particular professor only insofar as the

## ARTS AND SCIENCES

training and skills of a given professor are most likely to complement and thus aid the community service interests of the student.

Students interested in overseas study programs sponsored by other universities and organizations, both domestic and foreign, should contact the Overseas Study Information Center located in the Office of the Dean of Students. Information on work-study opportunities sponsored by institutions other than Oakland University can be obtained from the Placement Office.

# MISCELLANEOUS COURSES <br> COMMUNITY SERVICE 

CS 201-202 Community Service ( 8 credits each)
A program devoted primarily to volunteer service activity in the local community. A regular but modified schedule of class meetings and a series of academic assignments will also be required. Students will be placed in a service activity of their own interest, as approved by the instructor and the placement coordinator of the program. Admission is by application only, as submitted during the semester preceding enrollment in the course.
Prerequisites: A minimal grade point average of 2.0 and the completion of at least 28 credits prior to enrollment, or the permission of the instructor and the placement coordinator.

## GEOGRAPHY

GEO 200 Geography
(4 credits)
A general survey of selected regions of the world with an emphasis on the problems of political geography, but including aspects of cultural and economic geography.

## SCIENCE

## Requirements for the Teaching Minor in Science

The minor requires a minimum of 24 credits, selected from courses offered by the Departments of Biological Sciences, Chemistry, and Physics. Course selections must cover two of the three disciplines and must include 12 credits in each discipline applied to the minor. Hence the following options are available: chemistrybiology; chemistry-physics; biology-physics. All courses must be at the levels of BIO 111, CHM 104, PHY 101, or above, and they may not include courses in the discipline of the student's major.

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## ARTS AND SCIENCES

## SCI 141-142 Basic Scientific Methods <br> (4 credits each)

These courses, available to freshmen and sophomores, are designed for those who have little previous experience with science courses but may wish to explore the possibility of majoring in physics, chemistry or biology. Each student will be given the opportunity to develop his/her scientific skills through classroom and laboratory work. The emphasis will be on asking, and seeking answers to, scientific questions about the world of our immediate physical experience. Problem-solving skills and measurement techniques as needed for passing science-departments' courses are the objectives.
Prerequisite: One year of high school algebra recommended.
SCI 141 Techniques of problem solving, mathematical logic and quantitative calculation, and experimental observations. Basic principles of physics and chemistry applied to observed phenomena-crystals, light, gases, matter in motion.
SCI 142 Practice in scientific problem solving and experimental observations. Principles related to atoms and molecules, electrical charge, and properties of materials.

SCI 305 Science in the Elementary School
(4 credits)
Content and methodology appropriate to students in the elementary education program.
Prerequisite: Major standing in elementary education.

## SCI 505 Basic Concepts and New Developments in Science

(4 credits)
Basic concepts in science and science methodology. An intensive sfudy of one science area (e.g. biology, chemistry, physics, etc.) and a study of the new curricula in science for the elementary school.
Prerequisite: Admission to course in a graduate program in elementary education or permission of the Instructor.

## SCI 510 Environmental Education-Seven Ponds (4 credits)

Begins June 14, 9:00 a.m. at Seven Ponds Nature Center. Study of basic principles of conservation and natural resources management, to understand the relationships of modern man to the natural environment. Elementary ecology is followed by studies of population, pollution, forestry, soil conservation, water utilization, and recreation. Guest speakers are professionals from government and industry involved in land-use planning and problems. For teachers and anyone concerned with environmental education; science background not necessary. Full-time, daily, for three weeks of outdoor field work, lectures, and demonstrations, plus one week of independent study. Students pay for supplies and transportation on field trips. Registration limited. Students must reserve a place in the class by application to Director, Seven Ponds Nature Center, 3854 Crawford Road, Dryden, Mich. 48428. Registration and fee payments at first class meeting.

SCI 515 Environmental Education-Higgins Lake (2 credits)
Conducted under the auspices of the Michigan Department of Natural Resources at the Higgins Lake Conservation School. Staffed by DNR personnel and faculty members from Michigan universities. Aims to provide information and methodology for the educator on land use, water resources, types of pollution, and other aspects of the environment. Treats contemporary problems with scientific analysis in a socio-economic context. Would propel the educator into an action phase in his own community. A resident course for one week, Sunday p.m. through Friday. Available for any one of five weeks during the summer. Details available.

## COOPERATIVE ARRANGEMENT WITH THE MIDRASHA COLLEGE OF JEWISH STUDIES

A number of courses related to Hebraic culture and civilization, in cooperation with the Midrasha College of Jewish Studies, began in the academic year 1970-71. It is anticipated that further instruction will be offered to present a systematic analysis of the historic and contemporary experiences of the Jewish people, as reflected in the literature, philosophy, religion, language, and social patterns of many countries and civilizations.

The Midrasha is an undergraduate institution located in Southfield, Michigan, which specializes in Hebraic and Judaic studies. The College provides intensive academic and professional training and grants both the degree of Bachelor of Hebrew Literature and the degree of Bachelor of Jewish Studies.

The courses offered through this cooperative arrangement do not represent a separate or distinct program or major field of concentration. Rather courses in such subjects as Old Testament literature, the ancient Near East, contemporary Jewish philosophical thought, and the Hebrew language will be offered within existing programs sponsored by the Departments of Classical Languages and Literatures, English, History, Modern Languages and Literatures, and Philosophy.

## GRADUATE STUDIES IN THE COLLEGE OF ARTS AND SCIENCES

The following departments offer instruction leading to the degree of Master of Arts:

English
Mathematics
Psychology
The following departments offer instruction leading to the degree of Master of Science:

Chemistry
Physics
The following departments, jointly with the School of Education, offer instruction leading to the degree of Master of Arts in Teaching:

English
Mathematics
For further information concerning these programs, see the Graduate Bulletin.


## SCHOOL OF ECONOMICS AND MANAGEMENT

## OFFICERS OF ADMINISTRATION

NORTON C. SEEBER Dean

## OFFICERS OF INSTRUCTION

DONALD D. O'DOWD President
A.B., Dartmouth College; M.A., Harvard University; Ph.D., Harvard University

FREDERICK W. OBEAR Vice President for Academic Affairs
B.S., Lowell Technological Institute; Provost Ph.D., University of New Hampshire
eleftherios n. botsas (on leave Winter 1973)
B.S., University of Detroit;
M.A., Wayne State University;

Ph.D., Wayne State University

DANIEL N. BRAUNSTEIN
A.B., Cornell University;
M.S., Purdue University;

Ph.D., Purdue University
WILLIAM R. CRON
B.S., University of Detroit;
M.A., University of Detroit

DAVID P. DOANE
B.A., University of Kansas; M.S., Purdue University; Ph.D., Purdue University
ALICE G. GORLIN Instructor in Economics
B.S., Wellesley College;
M.A., University of Michigan

KARL D. GREGORY
B.A., Wayne State University; M.A., Wayne State University; Ph.D., University of Michigan

ROBBIN R. HOUGH
Chairman, Department of
Economics
Associate Professor of Economics and Management

Associate Professor of Economics and Psychology

Instructor in Ecomonics and Management

Assistant Professor of Economics

## ECONOMICS AND MANAGEMENT

JOHN HURD II (on leave 1972-73) Assistant Professor of Economics B.A., Yale University; Ph.D., University of Pennsylvania

SIDDHESHWAR MITTRA (on leave 1972-73)
B.Com., Agra University (India); Professor of Economics M.Com., Agra University (India); Ph.D., University of Florida

GADIS NOWELL Assistant Professor of Management
B.A., Morris Brown College; M.B.A., Atlanta University

LON POLK Assistant Professor of Economics
B.A., San Jose State College; Ph.D., University of Michigan

RICHARDS M. REESE Assistant Professor of
B.B.A., University of Texas at Austin; Management
M.B.A. University of Texas at Austin;

Ph.D., University of Texas at Austin
NORTON C. SEEBER Dean, School of Economics and Management Professor of Economics and Management B.S., University of Colorado; M.A., University of Colorado;

Ph.D., University of California (Berkeley)
HARVEY A. SHAPIRO
Assistant to the Dean
B.S., Carnegie-Mellon University Special Instructor in Management

JOHN E. TOWER
B.S.E., University of Michigan; of Economics and Management M.B.A., University of Michigan;

Ph.D., State University of New York at Buffalo
FRANCIS M. WEBSTER
Lecturer in Management
B.S., University of Missouri;
M.S.I.A., Carnegie-Mellon University

THEODORE O. YNTEMA
A.M., University of Illinois;
A.M., University of Chicago; Ph.D., University of Chicago;
C.P.A. (Illinois)

KENNETH C. YOUNG
Assistant Professor
B.A., Carson-Newman College; of Economics and Management M.B.A., Harvard University; M.S., Purdue University;

Ph.D., Purdue University
The School of Economics and Management offers a program in management leading to the degree of Bachelor of Science.

For students with special interests, the School also offers an independent concentration leading to the degree of Bachelor of Science. (See pp. 295-296.) In addition to these degree programs, the economics faculty of the School administers the liberal arts program in economics leading to the degree of Bachelor of Arts in the College of Arts and Sciences. Descriptions of these degree programs follow.

## UNDERGRADUATE PROGRAM LEADING TO THE BACHELOR OF SCIENCE IN MANAGEMENT

The management program provides an education for management (i.e., the effective use of resources for defined objectives) rather than an education which describes the practices and institutions of business. Our program aims to develop the transferable skills which make adaptive and innovative learners, and it enables graduates to understand and manage changing situations, whether these be in profit-oriented enterprises or in private or public not-for-profit enterprises. In this program, a general education is combined with the development of analytical approaches which will enable the student to devise new answers to the increasingly complex and changing problems faced by managers and technical personnel in both private business and public organizations. Because education for management is a continuing process throughout a management career, the program seeks to give students the kind of experience that will provide the foundation for adaptability within our rapidly changing modern environment.

The management major obtains the background necessary for entering industry training programs or graduate schools of management, as well as for initial entry into many positions in business, government, and administration. The program's emphasis on analysis and analytical tools, such as the computer, opens the way to positions in many areas characterized by rapidly developing technology and expanding employment opportunities.

## CURRICULUM CHANGES

As part of the continuing process of growth at Oakland University, the curriculum in management has undergone recent changes.

The curriculum described below will be effective for students entering the University in 1972-73 and after. Students enrolled prior to 1972 may, at their option, satisfy either the present or

## ECONOMICS AND MANAGEMENT

the older requirements for graduation (but they need not satisfy both sets of requirements). Further amplification of this rule and any other curriculum changes may be obtained from departmental advisers.

## PROGRAM IN MANAGEMENT

The normal program in management consists of five parts:
Percentage of
Courses Credits Total Credits

1. General Education (Including Two Courses in Learning Skills) 936 29\%
2. Management Major Requirements:
a. Cognate Courses in Economics and Mathematics
$5 \quad 20$
16\%
b. Management Core Program 9
c. Management/Economics Electives 416

24\%
3. Electives

6
22
13\%

| TOTAL FOR DEGREE | $\frac{6}{3}$ | $\frac{22}{124}$ | $\frac{18 \%}{100 \%}$ |
| :--- | :---: | :---: | :---: |

The various parts of the program are explained in the following sections.

## GENERAL EDUCATION

Oakland University requires all undergraduates in degree programs to participate in a set of courses designed to provide a broad intellectual experience in liberal education. Management students usually satisfy this general education requirement by meeting the requirements described below or by participating in the program of Allport College, Charter College, or New College.*

The School of Economics and Management requires that each student take at least seven courses ( 28 credits) in general education, distributed as follows:
(1) Learning Skills (0-8 credits) The student must obtain a certificate of proficiency in English composition from the Department of Learning Skills. The student may obtain this certification by passing an examination upon entering Oakland; otherwise he will be required to take courses in the De-

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## ECONOMICS AND MANAGEMENT

partment of Learning Skills until he earns the certification of proficiency in English (normally two courses).

## (2) Distribution Requirements

The student must take at least one course in each of the following four fields within the College of Arts and Sciences.
(a) Arts
(4 credits)
Any course for which the student qualifies that is offered by the departments of Art History, Studio Art, or Music, or UC 045 (Introduction to Theater).
(b) Letters (4 credits)

Any course for which the student qualifies that is offered by the departments of English, History, Philosophy, or Religious Studies, or any course in literature offered by the departments of Classics and Modern Languages and Literatures, or SCN 310 (Philosophy of Rhetoric), or ED 244 (Social and Philosophic Issues in Education).
(c) Natural Sciences
(4 credits)
Any course for which the student qualifies that is offered by the departments of Biology, Chemistry, or Physics, or any course in Science or Environmental Studies (except ENV 151).
(d) Area Studies (4 credits)

Any one of the following introductory Area Studies courses: China (UC 062), Japan (UC 063), Africa (UC 064), India (UC 066), Latin American (UC 068), and the Slavic World (UC 070).

## (3) Distribution Elective

(4 credits)
In addition to the courses required above, the student must elect one more general education course from the four fields listed above or from the courses in Symbolic Systems. The Symbolic Systems field covers any course from the following departments not required for the management major and for which the student qualifies: Computer and Information Science, Mathematics, Linquistics, and the language courses offered by the departments of Classics and Modern Languages.
(4) Social Science
(8 credits)
The student must take 2 courses for which he qualifies from one of the following social sciences departments: Political Science, Psychology, Sociology, Anthropology, and Speech Communication (except SCN 310).

These distribution courses are normally taken throughout the student's semesters of study.

## ECONOMICS AND MANAGEMENT

## MANAGEMENT MAJOR REQUIREMENTS

## Economics and Mathematics Cognate Courses

To obtain a basic set of skills useful in management, the student is required to take the following:

|  |  | Credits |
| :--- | :--- | :---: |
| ECN 100-101 | Introduction to Economics I and II | 8 |
| ECN 216 | Microeconomic Analysis | 4 |
| MTH 121-122 | Introductory Mathematics for the Life and <br> Social Sciences or MTH 154-155 (Calculus) | 8 |
|  |  | TOTAL |

The mathematics and quantitative methods requirement for a degree in management consists of two parts. The first part is a 2-course sequence (MTH 121-122 or MTH 154-155), designed to develop the fundamental mathematical skills used in subsequent courses in the management program. Depending upon the results of placement testing, some students may be advised to take MTH 120 before beginning the MTH 121-122 sequence or they may be advised to take MTH 134 before beginning the MTH 154-155 sequence.

The second part of this requirement consists of one course in intermediate-level quantitative methods. To meet this requirement, the student may select any one of the following courses as part of the Management Core Program: MGT 340, MGT 305, MGT 442, ECN 405, or MTH 322.

The appropriate choice from the above alternatives will depend upon the student's overall educational and career plans. Students who expect to go on to graduate school should obtain as strong a foundation in economics, mathematics, and quantitative methods as possible. Toward this goal, it is suggested that such students take the MTH 154-155 sequence (Calculus), followed later either by MGT 340 or by MTH 322 .

All students are urged to consult a faculty adviser as early as possible concerning their programs.

## Management Core Program

The required management core program consists of the following courses:

| MGT 200 | Management Information and Control <br> Systems I (Managerial Accounting) | Credits |
| :--- | :--- | ---: |
| MGT 201 | Computer Laboratory for MGT 200 | 4 |
| MGT 210 | Management Information and Control | 1 |
| Systems II (Statistics) |  |  |

## Electives

To complete the required total of 124 credits necessary for graduation, the student may elect any courses in the University for which he or she is eligible to enroll.

Modifications to the management program may be sought by petitioning the Committee on Instruction of the School of Economics and Management. If the requested changes to the above program are significant, the Committee may ask the student to work toward a Bachelor of Science with an independent concentration. (See pp. 295-296.)

## REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN MANAGEMENT

A student with a major in management must meet the following requirements in order to graduate:

## ECONOMICS AND MANAGEMENT

1. Have completed at least 124 credits.
2. Have completed 32 credits at Oakland University. A student must normally be registered at Oakland University for at least 8 credits during the semester in which the degree is to be conferred.
3. Have a cumulative grade point average of at least 2.0 in courses taken at Oakland University and in courses in the Major.
4. Have completed at least 8 credits in electives.
5. Have completed the program detailed above under General Education and Management Major Requirements.
6. Be in substantial compliance with all legal curricular requirements.

## REQUIREMENTS FOR MAJOR STANDING

Admission to major standing requires: (a) certification in English proficiency; (b) the completion of ECN 100-101, ECN 216, MGT 200201, and MTH 121-122 (or equivalent); (c) the completion of 56 credits; and (d) a cumulative grade point average of 2.0 overall and in management courses.

## BACHELOR OF SCIENCE IN MANAGEMENT

(A Typical Program)

Semester 1
Learning Skills (if required)
/Elective
ECN 100
MTH 121 (or MTH 154)
Distribution Requirement
Semester 3
MGT 200 and 201
ECN 216
MGT 330
Distribution Requirement
Semester 5
MGT 300
MGT/ECN Elective
Social Science
Distribution Requirement
Elective

Semester 2
Learning Skills (if required)
/Elective
ECN 101
MTH 122 (or MTH 155)
Distribution Requirement
Semester 4
MGT 210 and 211
MGT 331
Distribution Requirement
Elective

## Semester 6

Quantitative Methods Course (MGT 340, MGT 305, MGT 442 , ECN 405, or MTH 322) MGT/ECN Elective
Social Science
Distribution Requirement Elective

Semester 7
MGT/ECN Elective
Distribution Elective
Elective
Elective

## Semester 8

MGT 435
MGT/ECN Elective
Elective

## UNDERGRADUATE PROGRAM LEADING TO THE BACHELOR OF SCIENCE (INDEPENDENT CONCENTRATION)

Students wishing to pursue special interests may develop an independent concentration leading to the degree of Bachelor of Science in the School of Economics and Management. This independent concentration will be designed by the student and one or more faculty advisers. A Plan of Work is to be submitted as early as possible by the student and his or her advisers to the Committee on Instruction. The approval of the Plan of Work by the Committee is required for all independent concentrations and for any deviation from the Plan of Work.

## REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE WITH AN INDEPENDENT CONCENTRATION

A student with an independent concentration must meet the following requirements in order to graduate:

1. Have completed at least 124 credits.
2. Have completed 32 credits at Oakland University. A student must normally be registered at Oakland University for at least 8 credits during the semester in which the degree is to be conferred.
3. Have a cumulative grade point average of at least 2.0 in courses taken at Oakland University and in courses in the Concentration.
4. Have completed at least 8 credits in electives.
5. Have obtained certification of his/her English proficiency.
6. Have completed at least 28 credits in the General Education Program detailed above, or have completed an equivalent number of credits in Allport College, Charter College, or New College.
7. Have successfully completed a Plan of Work that was developed with a faculty adviser or advisers and that was approved

## ECONOMICS AND MANAGEMENT

by the Committee on Instruction of the School of Economics and Management.
8. Be in substantial compliance with all legal curricular requirements.

## REQUIREMENTS FOR MAJOR STANDING

Admission to major standing requires: (a) certification in English proficiency, (b) a total of 56 credits completed, (c) a cumulative grade point average of 2.0 or better, and (d) an approved Plan of Work.

## UNDERGRADUATE PROGRAM LEADING TO THE BACHELOR OF ARTS IN ECONOMICS

The curriculum for the liberal arts major in economics emphasizes concepts and tools of analysis and their application to problems of economic and social policies. By learning ways of thinking in economics, students gain insight into how to approach economic questions in various applied areas. Students are prepared for careers in industry and government or for graduate study in economics, law, management, or business administration.

The liberal arts program in economics leads to the degree of Bachelor of Arts and is offered in the College of Arts and Sciences under the direction of the faculty in economics of the School of Economics and Management. Students taking liberal arts majors, including the economics major, must satisfy the appropriate degree requirements in the College of Arts and Sciences as described in this catalog. The College of Arts and Sciences requirements for Economics Majors are specified in the program description below.

## PROGRAM IN ECONOMICS

The normal program in economics consists of five parts:

|  |  | Courses | Credits | Percentage of |
| :---: | :---: | :---: | :---: | :---: |
|  | General Education (including two | 8 | 32 | 26\% |
|  | Learning Skills Courses) |  |  |  |
| 2. | Economics Major Requirements: <br> a. Cognate Courses in Mathem |  |  |  |
|  | and the Social Sciences | 4 | 16 | 13\% |
|  | b. Economics Core Program | 7 | 25 | 20\% |
|  | c. Economics Electives | 3 | 12 | 10\% |
| 3. | Electives | 10 | 39 | 31\% |
|  |  | - | - | - |
|  | TOTAL FOR DEGREE | 32 | 124 | 100\% |

The various parts of the program are explained in the following sections.

## GENERAL EDUCATION

Oakland University requires all undergraduates in degree programs to participate in a set of courses designed to provide a broad, intellectual experience in liberal education. Economics students can satisfy this general education component by meeting the requirements of the College of Arts and Sciences or by participating in the program of Allport College, Charter College, or New College (see pp. 98-107 of this catalog for details of these inner colleges). The College of Arts and Sciences general education requirements, as they apply specifically to economics majors, are described below.

The College of Arts and Sciences requires that the economics major take at least 6 courses ( 24 credits) in general education, distributed as follows:
(1) Learning Skills
(0-8 credits)
The student must obtain a certificate of proficiency in English composition from the Department of Learning Skills. The student may obtain this certification by passing an examination upon entering Oakland; otherwise, he will be required to take courses in the Department of Learning Skills to earn this certification (normally 2 courses).
(2) Distribution Requirements
(12 credits)
The student must take at least one course in 3 of the following four fields within the College of Arts and Sciences:
(a) Arts (4 credits)

Any course for which the student qualifies that is offered by the departments of Art, History, Studio Art, or Music, or UC 045 (Introduction to Theater).
(b) Letters
(4 credits)
Any course for which the student qualifies that is offered by the departments of English, History, Philosophy or Religious Studies, or the literature courses of the departments of Classics and Modern Languages and Literatures, or SCN 310 (Philosophy of Rhetoric), or ED 244 (Social and Philosophical Issues in Education).
(c) Natural Sciences (4 credits)

Any course for which the student qualifies that is offered by the departments of Biology, Chemistry, or Physics, or any course in Science or Environmental Studies (except ENV 151).
(d) Area Studies
(4 credits)
Any one of the following introductory Area Studies courses: China (UC 062), Japan (UC 063), Africa (UC 064), India (UC 066), Latin America (UC 068), and the Slavic World (UC 070).

## (3) Distribution Electives <br> (12 credits)

In addition to the courses required above, the student must elect 3 more general education courses from the four fields listed above or from the courses in Symbolic Systems. The Symbolic Systems field covers any course for which the student qualifies which is not required for the major and offered by the following departments: Computer and Information Science, Mathematics, Linquistics, or the language courses offered by the departments of Classics and Modern Languages. The student is limited to using a total of 3 courses in a field including required courses, to meet this requirement.

These distribution courses are normally taken throughout the student's semesters of study.

## ECONOMICS MAJOR REQUIREMENTS

Mathematics and Social Science Cognate Courses
To obtain a background in mathematics and another social science discipline, the student is required to take the following:

Credits

| MHT 121-122 | Introductory Mathematics for the Life <br> and Social Sciences or MTH 154-155 <br> (Calculus) |
| :--- | :--- |

Social Science The student must take 2 courses for which he qualifies from one of the following social sciences: Political Science, Psychology, Sociology, Anthropology, and Speech Communication (except SCN 310).

TOTAL
16
Students who expect to go on to graduate school should obtain as strong a foundation as possible in mathematics and the social sciences. Toward this goal, it is suggested that such students take the MTH 154-155 (Calculus) sequence and consider taking advanced courses in mathematics. Those seriously interested in going on to graduate work are urged to consult an adviser early concerning their programs.

## Economics Core Program

The required economics program consists of the following courses:

|  |  |  | Credits |
| :---: | :---: | :---: | :---: |
| ECN | 100-101 | Introduction to Economics I and II | 8 |
| ECN | 210 | Statistical Methods for the Social Sciences | 4 |
| ECN | 211 | Laboratory for ECN 210 | 1 |
| ECN | 216 | Microeconomic Analysis | 4 |
| ECN | 217 | Macroeconomic Analysis | 4 |
| ECN | 480 | Seminar or ECN 418 Selected Topics in Economics | 4 |
|  |  |  | - |
|  | TOT | L IN ECONOMICS CORE PROGRAM | 25 |

## Economics Electives

The student completes his work in economics by electing at least 3 additional courses ( 12 credits) in economics. Two of the electives must require either ECN 216 or ECN 217 as a prerequisite.

## Electives

To complete the required total of 124 credits necessary for graduation, the student may elect any courses in the University for which he/she is eligible to enroll.

Modifications to the Economics program may be sought by petitioning the Committee on Instruction of the School of Economics and Management. If the requested changes to the above program are significant, the Committee may ask the student to work toward a Bachelor of Arts with an independent concentration. (See pp. 107-109 of this catalog.)

## REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS IN ECONOMICS

A student with a major in economics must meet the following requirements in order to graduate:

1. Have completed at least 124 credits.
2. Have completed 32 credits at Oakland University. A student must normally be registered at Oakland University for at least 8 credits during the semester in which degree is to be conferred. 3. Have a cumulative grade point average of at least 2.0 in courses taken at Oakland University and in courses in the major.

## ECONOMICS AND MANAGEMENT

4. Have completed at least 8 credits in electives.
5. Have completed the program detailed above under General Education and Economics Major Requirements.
6. Be in substantial compliance with all legal curricular requirements.

## REQUIREMENTS FOR MAJOR STANDING

Admission to major standing in economics requires: (a) certification of English proficiency; (b) completion of ECN 100-101, ECN 216, ECN 217, MTH 121-122 (or equivalent); (c) completion of 56 credits or more; and (d) at least a 2.0 cumulative grade point average overall and in major courses.

## LIBERAL ARTS MAJOR IN ECONOMICS

(A Typical Program)

Semester 1
Learning Skills (if required)
/Elective
MTH 121 (or MTH 154)
ECN 100
Distribution Requirement
Semester 3
ECN 216
ECN 210 and 211 (or MGT 210 and 211)
Distribution Requirement
Elective

## Semester 5

Economics Elective
Social Science Requirement
Distribution Requiremenì
Elective

## Semester 7

Economics Elective
Elective
Elective

## Semester 2

Learning Skills (if required) /Elective
MTH 122 (or MTH 155)
ECN 101
Distribution Requirement
Semester 4
ECN 217
Distribution Requirement
Social Science Requirement Elective

## Semester 6

Economics Elective
Distribution Requirement
Elective
Elective
Semester 8
ECN 480 (or ECN 418)
Elective
Elective

## COURSE OFFERINGS IN MANAGEMENT

Under special circumstances, the prerequisites may be waived. MGT 100 Management: What Is It? (4 credits) An introduction to the character of management activities and the environment in which these take place; the individual and the firm viewed as utility-maximizing

## ECONOMICS AND MANAGEMENT

systems; some elementary principles relating individuals and firms to the economic system. In dealing with these issues, the course introduces the student to some pervasive and transferable generalized skills applicable to perception and solving of problems.

## MGT 200 Management Information and Control Systems I (Managerial Accounting) <br> (4 credits)

Introduction to management information systems as aids to decision-making and the identification, quantification, and communication of managerial information. To include: accounting and other internal management languages; budgeting; introduction to the use of computer-based information systems. Ordinarily offered in the Fall and Winter Semesters.
Corequisite: MGT 201.
MGT 201 Computer Laboratory for MGT 200
(1 credit)
Infroduction to computers in information processing systems; computer languages and flow charts. Ordinarily offered in the Fall and Winter Semesters.

## MGT 205 Introduction to Computer Programming (4 credits)

 Introduction to the use of computers. Students learn the BASIC language in an interactive time-sharing environment and FORTRAN in the batch mode. Ordinarily offered in the Fall Semester.Prerequisite: Knowledge of high school algebra.

MGT 210 Management Information and Confrol Systems II (Statistics)
Continuation of MGT 200: management controls; statistical analysis; inference and hypothesis testing; decision theory; regression and correlation; statistical controls. Ordinarily offered in the Winter Semester.
Prerequisite: MTH 122 or equivalent.
Corequisite: MGT 211.

MGT 211 Computer Laboratory for MGT 210
(1 credit)
Use of computers in problem-solving and statistics. Ordinarily offered in the Winter Semester.

## MGT 300 Management Systems Analysis (4 credits)

Emphasizes the identification of goals and the use of resources for achieving goals through the application of analytical and quantitative tools developed in earlier courses to problems drawn from a variety of experiences, e.g., financial management, marketing, production, capital budgeting, etc. The course is designed to develop students' skills in the use of tools, to facilitate the transferability of these skills, and to enhance their ability to develop new skills as required by a given situation. Identical with ECN 300. Ordinarily offered in the Fall and Winter Semesters. Prerequisites: ECN 216 or equivalent.

## MGT 303 Economic Growth, Fluctuations, and Forecasting

Analysis of the forces underlying economic growth in advanced nations. Study of business conditions and various factors affecting business fluctuations. Introduction to economic forecasting techniques for the individual firm and for the national economy. Identical with ECN 303. Ordinarily offered in the Fall Semester. Prerequisites: ECN 101 or equivalent.

## ECONOMICS AND MANAGEMENT

## MGT 305 Computer Systems for Problem-Solving (4 credits)

This is an advanced communications and problem-solving course in which students learn how to specify and design systems for computers. The course consists of field studies by groups of students which will lead to computerized prototype solutions of "real-world" problems. Oral and written skills will be stressed in the preparation of all the material by the groups.
Prerequisite: Programming experience in a higher level language (i.e., BASIC or FORTRAN).

## MGT 322 Capital Markets

(4 credits)
Analysis of the operation of major financial institutions and markets. Sources and uses of funds for corporations and other organizations. Identical with ECN 322.
Prerequisites: ECN 216 or equivalent.

## MGT 324 Business in the American Economy (4 credits)

Public attitudes toward, and government regulation of, business; social and legal responsibilities of business. Identical with ECN 324.
Prerequisites: ECN 216 or equivalent.

## MGT 325 Industrial Organization

(4 credits)
Resource patterns, production processes (including technology and economies of scale), and managerial organization as related to the size of firms and the location of industries. Identical with ECN 325.
Prerequisites: ECN 216 or equivalent.

## MGT 330 Organizational Behavior I <br> (4 credits)

Individual Behavior in Organizations. An exploration of relationships between individuals and organizations. Applications from general social and industrial psychology to the management of work performance evaluation, supervision, influence of informal work groups, and behavioral change are surveyed both empirically and theoretically. In all cases, development of the student as an analytical consumer of behavioral data will be stressed. Identical to PSY 235. Ordinarily offered in the Fall Semester.

## MGT 331 Organizational Behavior II

(4 credits)
Social Psychology of Organization Behavior. Implications for organizational management of group behavior. Theoretical and empirical approaches to issues such as communication, decision-making, power and authority, conflict, organizational change, leadership, and organizational climate. Emphasis will be placed on developing the student as an analytical consumer of data. Identical to PSY 236. Ordinarily offered in the Winter Semester.
Prerequisites: MGT 330 or equivalent.

## MGT 333 Labor-Management Relations

Analysis of management-employee relations in modern industry; public policy in labormanagement areas. Identical with ECN 333.
Prerequisites: ECN 216 or equivalent.

## MGT 340 Quantitative Methods of Management (4 credits) Science

Applications of statistics, linear programming, and other quantitative techniques to management problems.
Prerequisites: MTH 122 and MGT 210, or equivalent.

## MGT 342 Simulation in Management

(4 credits)
An introduction to the use of simulation techniques in economic analysis. Prerequisites: Major standing and permission of the Instructor.

## MGT 402 Marketing and Consumer Behavior <br> (4 credits)

Analysis of consumer behavior and its significance for market analysis. The relationship between market structure and marketing behavior.
Prerequisite: Permission of the Instructor.

## MGT 430 Assessment of Organizational Behavior (4 credits)

Use of findings and methods of various behavioral research strategies as inputs for managerial problem-solving. Comparison of case, experimental, survey, correlational, and other approaches. Issues of reliability and validity of data, and research bias. Review of various methods of individual and organizational measurement devices, including industrial tests, morale surveys, etc. Practical experience in the collection and evaluation of data will be included.
Prerequisite: MGT 331.

## MGT 431 Leadership and Group Performance (4 credits)

A comprehensive examination of different theories of leadership. Emphasis on relevant empirical evidence and application of the theories to case studies. Prerequisite: MGT 331.

## MGT 435 Management Strategies and Policies

Financial, economic, and other management tools used to analyze organizational case sfudies.
Prerequisite: 16 credits in management.

## MGT 442 Operations Research

(4 credits)
Operations research techniques are used in exploring problems selected from several areas of organizational and business analysis. Identical with ECN 442.
Prerequisites: ECN 216 or equivaelnt.

## MGT 460 Independent Group Study (2 or 4 credits)

Students in this course determine which current economic issues are of interest to them and prepare a program for pursuing these issues in depth. The course consists primarily of student participation, but students may draw upon the faculty for consultation and direction. Although independent research is an integral part of the course, the major emphasis is on class discussion and analysis. Identical with ECN 460. Prerequisite: Major standing.
MGT 490 Independent Research
(2 or 4 credits)
Offered every semester.
Prerequisite: Permission of the Instructor.

## BASIC COURSES

The following courses are part of the basic program of the economics major and will be offered each year. Under special circumstances, the prerequisites and corequisites for a course may be waived.

## ECN 100 Introductios to Economics I

(4 credits)
An introduction to the tools and analysis of economics in four modules: a) introducfion to the methodology and tools of economic analysis; b) elementary analysis of the

## ECONOMICS AND MANAGEMENT

market system (microeconomics); c) elementary analysis of the determination of national income, employment, and the price level (macroeconomics); and $d$ ) the application of economic analysis to poverty, urban problems, international trade, environmental degradation, or other specific areas.

## ECN 101 Introduction to Economics II

(4 credits)
A continuation of ECN 100 with four more modules: a) the instruments used in economic policy and their control by economic institutions, i.e., accounting for the firm and GNP accounting; b) statistics; c) computers and computer programming; and d) a project of the student's choice.

Prerequisite: ECN 100.

## ECN 169 Introduction to the Political Economy of Capitalism <br> (4 credits)

An introduction to the economic analysis of the capitalist economy using the tools and perspectives of both the traditional and radical economists. Topics include: (a) microeconomics-the development of the market system, monopoly, discrimination, pollution and other ecological concerns, and poverty; (b) macroeconomics-control of the level of economic activity, unemployment, inflation, defense spending, growth and under-development, and imperialism; and (c) alternative economic systems.

This course is not open to majors in economics or management.
ECN 210 Statistical Methods for the Social Sciences (4 credits)
Statistical techniques useful in business and economic analysis. Emphasis on statistical inference, including hypothesis testing, estimation, and regression techniques. Ordinarily offered in the Fall Semester.
Prerequisites: MTH 122 or equivalent.
Corequisite: ECN 211.
ECN 211 Laboratory for ECN 210
(1 credit)
Use of computers in statistics. Ordinarily offered in the Fall Semester.

## ECN 216 Microeconomic Analysis

(4 credits)
Intermediate analysis of pricing, resource allocation, and income distribution at the level of the individual firm, industry, and household consuming unit. Ordinarily offered in the Fall and Winter Semesters.
Prerequisites: ECN 101 or equivalent.
Prerequisites or corequisites: MTH 122 or equivalent.

## ECN 217 Macroeconomic Analysis

(4 credits)
The construction, analysis, and interpretation of models of aggregate economic behavior, including the policy implications of alternative models. Ordinarily offered in the Fall and Winter Semesters.
Prerequisites: ECN 101 or equivalent.
Prerequisites or corequisites: MTH 121 or equivalent.

## ECONOMICS ELECTIVES

Economics electives provide an opportunity for the student to gain greater proficiency in the use of analytical tools, in the application of these tools to specialized problems, and in the investigation of current issues. Following is a list of economics electives which have been offered by members of the faculty in the past three years. Students should use this list as a guide to
what has been offered and what could be offered. If some students desire to take a given course on the list or a course in addition to those on the list, they should petition the Department or a faculty member in an attempt to have the course offered. Any new course offering, change in the description of a course, or any change in the prerequisites for a course will be announced in a supplementary bulletin published during the advising period for a given semester. Under special circumstances, the prerequisites and corequisites for a course may be waived.
ECN 223 The Indian Economy
(4 credits)
The economic problems of developing nations in the context of the Indian economy. Prerequisite: Permission of the Instructor.

## ECN 225 American Economic History

(4 credits)
Models and case studies of principal events in the growth and development of the American economy from colonial times to the present. Emphasizes the evolution of current historical thought under the impact of economic analysis.
Prerequisites: ECN 100 or equivalent.

## ECN 300 Systems Analysis

(4 credits)
Emphasizes the identification of goals and the use of resources for achieving goals through the application of analytical and quantitative tools developed in earlier courses to problems drawn from a variety of experiences, e.g., financial management, marketing, production, capital budgeting, etc. The course is designed to develop students ${ }^{\prime}$ skills in the use of tools, to facilitate the transferability of these skills, and to enhance their ability to develop new skills as required by a given situation. Identical with MGT 300. Ordinarily offered in the Fall and Winter Semesters. Prerequisites: ECN 216 or equivalent.

## ECN 303 Economic Growth, Fluctuations, and Forecasting

Analysis of the forces underlying economic growth in advanced nations. Study of business conditions and various factors affecting business fluctuations. Infroduction to economic forecasting techniques for the individual firm and for the national economy. Identical with MGT 303. Ordinarily offered in the Fall Semester. Prerequisites: ECN 101 or equivalent.

## ECN 308 Urban-Regional Economics

(4 credits)
Application of the tools of economic analysis to the problems of the determination of the level, distribution, growth, and stability of income within and among urban regions. Study of the impact of these processes on spatial organization, transportation, industrial location, and the provision of public services.
Prerequisites: ECN 100 or equivalent.
ECN 309 Metropolis: Problems and Policies (4 credits)
A survey of the economics of urban problems in the United States. Includes the analysis of urban poverty, land use, transportation, and environmental quality; discussion of the economics of political fragmentation and the nature of national urban policy; review of the state of the art in urban planning. Selected problems of the Detroit area economy are examined.
Prerequisites: ECN 100 or equivalent.

## ECONOMICS AND MANAGEMENT

## ECN 321 Monetary Theory and Policy

(4 credits)
Analysis of modern monetary and banking theories. The course investigates both domestic and international monetary analysis and policies, and the relationship between monetary and fiscal policies as they affect the economy.
Prerequisites: ECN 101 or equivalent.

## ECN 322 Capital Markets

(4 credits)
Analysis of the operation of major financial institutions and markets. Sources and uses of funds for corporations and other organizations. Identical with MGT 322.
Prerequisites: ECN 216 or equivalent.

## ECN 323 Infernational Trade and Finance

(4 credits)
The theory of international specialization and exchange, commercial policy, national income and balance of payments, monetary relations, foreign investment, and current issues of international economic policy.
Prerequisites: ECN 216 or equivalent.

## ECN 324 Business in the American Economy (4 credits)

Public attitudes toward, and government regulation of, business; social and legal responsibilities of business. Identical with MGT 324.
Prerequisites: ECN 216 or equivalent.

## ECN 325 Industrial Organization

(4 credits)
Resource patterns, production processes (including technology and economies of scale), and managerial organization as related to the size of firms and the location of industries. Identical with MGT 325.
Prerequisites: ECN 216 or equivalent.

## ECN 326 Economic Development

(4 credits)
Application of the tools of economic analysis to the problems of economic development and growth.
Prerequisites: ECN 100 or equivalent.

## ECN 333 Labor-Management Relations

(4 credits)
Analysis of management-employee relations in modern industry; public policy in labor-management areas. Identical with MGT 333.
Prerequisites: ECN 216 or equivalent.
ECN 336 Economics of the Public Sector
(4 credits)
A study of the role and impact of the public sector in a market economy. Includes expenditure determination, revenue source analysis, and discussion of current problems. Prerequisites: ECN 101 or equivalent.

ECN 342 Simulation in Economics
(4 credits)
An introduction to the use of simulation techniques in economic analysis. Prerequisites: Major standing and permission of the Instructor.

ECN 350 Economic Structures and Systems
A comparative analysis of the principles, structures, and ideologies of capitalism, socialism, and the command economy, with special emphasis on the processes of economic decision-making.
Prerequisites: ECN 216 or equivalent.

## ECN 405 Economefrics

An introduction to the testing of economic models, expressed mathematically, by statistical methods.
Prerequisites: ECN 210, ECN 216, ECN 217 (or equivalent courses), and permission of the Instructor.

## ECN 417 Advanced Economic Theory <br> (4 credits)

This course covers selected topics in the economic theory of resource allocation, economic growth, and stability.
Prerequisites: ECN 216 and ECN 217, or equivalent.

## ECN 418 Selected Topics in Economic Policy <br> (4 credits)

Prerequisite: Major standing.

## ECN 442 Operations Research <br> (4 credits)

Operations research techniques are used in exploring problems selected from several areas of organizational and business analysis. Identical with MGT 442.
Prerequisites: ECN 216 or equivalent.

## ECN 460 Independent Group Study (4 credits)

Students in this course determine which current economic issues are of interest to them and prepare a program for pursuing these issues in depth. The course consists primarily of student participation, but students may draw upon the faculty for consultation and direction. Although independent research is an integral part of the course, the major emphasis is on class discussion and analysis. Identical with MGT 460.
Prerequisite: Major standing.

## ECN 480 Seminar

(4 credits)
Theses, individual topics, and readings. Ordinarily offered in the Winter Semester. Prerequisite: Major standing.
ECN 490 Independent Research (2 or 4 credits)
Offered every semester.
Prerequisite: Permission of the Instructor.


## SCHOOL OF EDUCATION

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Administrative Assistant to the Dean Associate Director of Student Teaching
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Ph.D., University of New Hampshire

President
Professor of Psychology

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## EDUCATION

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## EDUCATION

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## COLLEGE OF ARTS AND SCIENCES

DAVID C. BEARDSLEE $\quad$| Professor of Psychology |
| :--- |
| B.A., Swarthmore College; M.S., University of Michigan; |

| Professor of History |
| :--- |
| Ph.D., University of Michigan |


| MELVIN CHERNO |
| :--- |
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| Ph.D., Stanford University |

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PETER G. EVARTS
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WILLIAM C. FORBES Professor of Biological Sciences
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M.A., Columbia University; Ed.D., Columbia University;

Ph.D., University of Connecticut
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S. BERNARD THOMAS

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IRVING TORGOFF Associate Professor of Psychology
B.S., City College of New York; Ph.D., University of Rochester

## THE UNDERGRADUATE PROGRAMS

Prospective elementary and secondary teachers may pursue a variety of programs and be sponsored for teaching certificates in the State of Michigan. Certification in this state usually suffices for, or facilitates the obtaining of, teaching certificates in other states. Concerning certification in Michigan and in other states, see pp. 318-319 of this catalog.

The aim of all teacher education programs at Oakland is to develop graduates who are both broadly educated and competently prepared for their specialized duties. Prospective teachers develop their majors and minors through liberal arts and science courses offered by the College of Arts and Sciences. The Department of Teacher Education offers professional education courses. Some of these courses include direct encounters with teaching in

## EDUCATION

the public schools. For example, in their sophomore year, as part of an educational psychology course, prospective teachers observe various classroom situations in nearby schools and then discuss their observations in seminars on campus. Later, in their senior year, they have a ten-week internship during which they teach their subject under the supervision of a co-operating teacher and an Oakland faculty member.

All undergraduate teaching majors must take ED 244, 245, 455, and either ED 428 (secondary) or ED 433 (elementary).

## SECONDARY TEACHING MAJORS

Prospective secondary school teachers may choose any one of thirteen teaching majors. The independent concentration offered by the College of Arts and Sciences is not included in this list. Consult the departmental entries in the College of Arts and Sciences for descriptions of secondary majors and minors.

Secondary teaching majors are available in the following subject areas:

| Biology | (See p. 123.) | Mathematics | (See p. 185.) |
| :--- | :--- | :--- | :--- |
| Chemistry | (See p. 133.) | Music | (See p. 216.) |
| English | (See p. 156.) | Physics | (See p. 229.) |
| French | (See p. 198.) | Russian | (See p. 198.) |
| German | (See p. 198.) | Spanish | (See p. 198.) |
| Latin | (See p. 143.) | Social Studies | (See p. 278.) |

## SECONDARY TEACHING MINORS

Ten teaching minors are available to the prospective secondary school teacher. They are:

| Art | (See p. 121.) | Modern Languages |  |
| :--- | :--- | :--- | :--- |
| Biology | (See p. 123.) | (See p. 199.) |  |
| Chemistry | (See p. 134.) |  |  |
| English | (See p. 157.) | Physics | (See p. 229.) |
| History | (See p. 165.) | Science | (See p. 283.) |
| Mathematics | (See p. 186.) | Social Studies | (See p. 279) |

## ELEMENTARY EDUCATION PROGRAM

Prospective elementary school teachers must take a common core program and choose one area for major concentration and another

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for minor concentration. Students may concentrate in two major fields (instead of one major and one minor), but they may not select a single area for both major and minor concentrations. The core program and the concentrations complete all University requirements for graduation except that together they do not normally yield sufficient credits for the degree of Bachelor of Arts. To reach the minimum graduation requirement of 124 credits, students, in consultation with the elementary education advising office, must complete their programs with electives. The advising office is located in room 530 Varner Hall.

## Core Program

Freshman Composition: Certificate of competence through examination or course work in learning skills $-0-8$ credits.

2 semesters of Foreign Language or Linguistics 176, 1778 credits Psychology (UC 054 or PSY 146 or PSY 171) 4 credits
ART $147 \quad 5$ credits

MUS $149 \quad 5$ credits
MTH 3144 credits
MTH 315 and MTH 316* 8 credits
SCl $305 \quad 4$ credits
Area Studies 4 credits
Literature (UC 018, Eng. 105 or 111 or 140, or any course in foreign language numbered 271 or higher) 4 credits
Social Science (other than psychology) 4 credits
ED 244, $245 \quad 8$ credits
ED 331 credits
ED 433 and ED 45512 credits
*Students in the foreign language major concentration must elect the foreign language 114-115 sequence for 10 credits and are not required to take MTH 315 and MTH 316.

## Major Concentration

HISTORY/SOCIAL SCIENCE

| Psychology (UC 054 or PSY 146 or PSY 271) <br> Area Studies | From 4 credits <br> Social Sciences the core <br> program 4 credits <br> 4  <br> credits  |  |
| :--- | :--- | :--- |
| HST 214,215 |  | 8 credits |

Additional courses in history, social science, geography, area studies

16 credits
Total 36 credits

## MODERN LANGUAGE

| Foreign Language $\quad$ From the core program | 10 credits |
| :--- | :--- |
| Additional courses in same language <br> offered in fulfillment of core requirement | 26 credits |
| Total | 36 credits |

NOTE: Students who plan to combine a foreign language major concentration with a language arts minor should include LIN 176, 177, as a part of the minor sequence.

## LANGUAGE ARTS

| $\left.\begin{array}{l}\text { Foreign Language or LIN (Eng) 176, 177 } \\ \text { Literature }\end{array}\right\}$From the <br> core program | 8 credits <br> 4 credits |
| :--- | :--- |
| Additional courses in English, speech, foreign |  | | 24 credits |
| :--- |
| $\quad$ language* |
| Total |

NOTE: ED 332 can be used as part of this concentration.
*Students who elect a foreign language to satisfy the language requirement must include ENG 176 or 177 as part of this concentration.

## SCIENCE/MATHEMATICS

| MTH 314, 315, 316 |  | $m$ the core prog | 12 credits |
| :---: | :---: | :---: | :---: |
| SCI 305 |  | core pros | 4 credits |

Additional courses in science and mathematics approved by the
Committee on Science and Mathematics 20 credits
Total
36 credits

## Minor Concentration

HISTORY/SOCIAL SCIENCE
\(\left.\begin{array}{l}Psychology (UC 054 or PSY 146 or PSY 171) <br>
Area Studies <br>

Social Sciences\end{array}\right\}\)| From the | 4 credits |
| :--- | :--- |
| core program | 4 credits |
| 4 credits |  |

HST 214, $215 \quad 8$ credits

Additional courses in history, social science, geography, area studies

4 credits
Total 24 credits

## EDUCATION

## LANGUAGE ARTS

\(\left.\begin{array}{l}Foreign Language or LIN (Eng) 176, 177 <br>

Literature\end{array}\right\}\)| From the |
| :---: |
| core program | | 8 credits |
| :--- |
| 4 credits |

Additional courses in English, speech and foreign language*

12 credits

## Total <br> 24 credits

NOTE: ED 332 can be used as part of this concentration.
*Students who elect a foreign language to satisfy the language requirement must include ENG 176 or 177 as part of this concentration.

## SCIENCE/MATHEMATICS

MTH 314, 315, 316
SCI 305
Additional courses in science and/or mathematics

## Total

\} From the core program
12 credits
4 credits
8 credits

NOTE: Exploratories may be used as electives.
A Senior Colloquium in the area of a major or a minor concentration may be used as part of this major or minor.

## SPONSORSHIP FOR MICHIGAN TEACHER CERTIFICATION

The State Department of Education certifies teachers in Michigan. It issues provisional certification to candidates deemed qualified by colleges and universities. This Provisional Certificate can be converted to a Permanent Certificate after a period of teaching and additional studies. Oakland University sponsors its graduates for the Provisional Elementary and the Provisional Secondary Certificates if the following requirements are met:

1. Completion of the University baccalaureate with a teaching major and one appropriate minor.
2. An internship (ED 455) grade of 2.5 or better.
3. Demonstrated proficiency in the use of English. The criteria of acceptability may be ascertained by consulting the School of Education Office. Students should satisfy this requirement before the senior year to allow time to remove deficiencies.

NOTE: Students who expect to teach in a state other than Michigan should ascertain what requirements beyond those of Michigan that
state demands. It is the responsibility of the student to plan his or her program accordingly.

## THE GRADUATE PROGRAMS

The School of Education and the College of Arts and Sciences jointly offer programs leading to the degrees of Master of Arts in Teaching in English and Master of Arts in Teaching in mathematics. In addition, the School of Education offers programs leading to the degree of Master of Arts in Teaching in the areas of elementary education and of reading and the degree of Master of Arts in Teaching in special education (for emotionally disturbed children). For details on these graduate programs consult the Graduate Bulletin.

## CERTIFICATION PROGRAMS FOR GRADUATES

For graduates of accredited institutions who wish to be certificated as teachers, Oakland University makes available programs in all majors offered by the University. Those seeking sponsorship for certification must be admitted through the Office of Graduate Study and must then apply to the School of Education for preparation of a certification program. This program will be prepared in consultation with the departments concerned and must be approved by them as well as by the School of Education. Application for admission should be made early enough in the semester prior to the one in which the student intends to enroll so that the various departments as well as the School of Education have ample opportunity to evaluate transcripts and advise students of courses which they will be required to take. Successful completion of such a program leads to sponsorship by Oakland University for the appropriate Michigan Provisional Certificate.

## COURSE OFFERINGS

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## EDUCATION

## ED 245 Psychological and Field Studies in Education (4 credits)

Psychological factors involved in learning and development are examined in lectures, class discussions, and observations of teaching. These observations may be of actual feaching in the schools, or they may be observations of video tapes of teaching. Identical with PSY 245.
Prerequisites: Sophomore Standing ( 32 hrs .) and 1 course in Psychology

## ED 321 The Teacher and the Atypical Child <br> (4 credits)

The identification and management of atypical children in a regular elementary classroom setting. The course will deal particularly with those children requiring special management techniques and some modification of curriculum. These children may be hyper-active or withdrawn; they may have emotional, perceptual, or learning problems; or they may be gifted. Sections on parental assistance in handling atypical children and on school and community services available for diagnosis and referral will be included.
Prerequisites: ED 244 and ED 245.

## ED 322 Introduction to Early Childhood

(4 credits)

## Theory and Practice

Provides a basic introduction to the field of early childhood, including the period from birth to age 8. Three major areas will be emphasized: growth and development of infants and young children, analysis of optimal learning environments for the young child, and methods and materials which facilitate learning in early childhood. Special emphasis will be placed on providing students with experience with infants and young children of a variety of socioeconomic backgrounds in group and individual settings and in relating theoretical knowledge to these practicum experiences. Probably 2 hours class, 2 hours lab per week.
Prerequisites: ED 245 or PSY 271 or permission of Instructor.
ED 323 Education of the Spanish-Speaking
(4 credits)
This course is intended to provide an opportunity for teachers and other educators to become familiar with the negative and positive aspects of Latino Education. Lectures, readings, and discussions will deal with background information about the Spanish-speaking in the U. S.; the problems that confront Latinos in the educational system; and the effective and promising approaches to educating the Spanish-speaking. Prerequisites: ED 244, 245 or permission of Instructor. (Same as ED 586).
ED 331 Teaching and Reading
(4 credits)
Intensive preparation for the teaching of reading skills in the elementary grades. Identification of reading readiness, problems of program construction, and a variety of teaching methods are among the topics of the course.
Prerequisites: ED 244 and ED 245.

## ED 332 Literałure for Children

(4 credits)
The course treats literature for children as part of the mainstream of literature. Students will learn to apply basic concepts of criticism to the study of literary works for children in order to develop the ability to select and use quality books appropriate to the needs and developmental levels of children.
Prerequisites: ED 244, ED 245 and completion of the general education Distribution Requirements in literature.

## ED 333 Teaching the Language Arts

(4 credits)
Preparation for the teaching of language arts in the elementary, middle, and early secondary schools. Teaching of composition, creative writing, oral language develop-
ment, listening, spelling, reading, and the application of linguistic principles to reading and writing are among the topics covered in this course.
Prerequisite: ED 245.

## ED 338 Teaching Reading in the Content Areas (4 credits)

A basic course in reading for students planning to teach in secondary school. Course content will deal with the nature of the reading process and methods and materials for teaching the reading of English, social studies, and other subjects to junior and senior high school students. (Not open to elementary education majors.)

## ED 361 Techniques of the Helping Interview (2, 4 credits)

Emphasizes listening and observation skills, establishing mutual trust and acceptance, and providing support in a one-to-one relationship to help persons in decision making and to find success in personal endeavors such as education or employment. Students will learn to recognize applicant's needs for additional supportive services. Includes an introduction to the philosophy, theory, and research of the helping relationship. Techniques of instruction include role-playing, simulation, interaction analysis and experience with actual clients.
Prerequisite: Permission of Instructor.

## ED 362 Assessment of Youth and Adults (2, 4 credits)

Concerns an overview of techniques used in the assessment of youth and adults for purposes of deciding upon and implementing educational, occupational, and personalsocial strategies. Students will be introduced to measurement terminology as well as techniques of test administration and interpretation. Tools for assessing aptitudes, interest, abilities and attitudes will be studied. Emphasis will be placed upon the synthesis of data in the form of case studies and in case conferences.
Prerequisite: Permission of Instructor.

## ED 363 Dynamics of Human Relationships in (2, 4 credits) Education and Work Settings

Deals with inter-personal relationships among students and teachers, employees and supervisors, and peers, in various settings such as: schools, adult training classes, government offices, and in groups or teams of co-workers. Introduces sociological and psychological theories of dynamics of human group behavior which can be applied personally by students in their work relationships. Emphasizes techniques of teaching these concepts to persons who they are helping to continue their education and to seek, to obtain, and to keep a job.
Prerequisite: Permission of Instructor.

## ED 364 Guidance Information and <br> (2, 4 credits) <br> Community Resources

Covers sources of occupational, educational and personal-social information and techniques for using guidance information in the helping process. Establishes a repertoire of knowledge about community agencies and resources, manpower programs, educational and on-the-job training opportunities, and labor market trends. Students will gather first hand information from site visitations as well as through audio visual and printed media.
Prerequisite: Permission of Instructor.

## ED 365 Introduction to Student Personnel Services

Includes basic principles and practices, evaluation and organization of college student personnel services for persons who are currently engaged in some phase of student personnel work or who plan to enter this work in the near future.
Prerequisite: Permission of Instructor.

## ED 366 Techniques of Human <br> (2, 4, 6, or 8 credits) <br> Resources Development

This course is intended to prepare individuals for work in public service in the emerging field of human resources development. Emphasis is placed upon cooperation among school teachers, counselors, parents, and community agency personnel (including employability development teams) to assist disadvantaged youth and adults from urban and rural areas and various cultural backgrounds to discover and develop their fullest potential and social usefulness.
Prerequisite: Permission of Instructor.

## ED 367 Employability Development Procedures

(4 credits)
Procedures of assisting persons to make a transition from education or unemployment to work. Development of skills to seek, obtain, and hold a job. Guidance practices to provide support and serve as an advocate for unemployed and disadvantaged persons. Introduction to job development procedures and service as a member of an employability development team.
Prerequisite: Permission of Instructor.

## ED 368 Work and Training Development <br> (2, 4 credits)

Concerns confact work with employers and educators to develop jobs and training courses for persons who are enrolled in employability development and related manpower training programs. Stresses techniques of: appraising the needs of employers for persons with certain skills; writing work and training development contracts; and trainee follow-up and support.
Prerequisite: Permission of Instructor.

## ED 369 Field Experiences in Guidance (2, 4, 6, or 8 credits)

 Provides supervised experiences in a variety of helping relationships in work settings such as schools, employment offices, social services agencies, and in industry. Includes an orientation to various local community cultural settings and life styles. Experiences emphasize the process helping young people and adults adjust to education or work experience.Prerequisite: Permission of Instructor.

## ED 428 Teaching of the Major Field

(4 credifs)
Content and methodology appropriate to the student's major field. Organization of programs and courses, bibliography of the field, and techniques of instruction receive special emphasis.
Prerequisites: ED 244, ED 245, and major standing. Must be taken concurrently with ED 455 except when other provisions have been made by the major department.

## ED 430 The Public School in Urban America <br> (4 credits)

The course deals with the role of schools in contemporary urban America, with special emphasis on the relationship between the school and the urban ethos, social stratification, racial identities, and the functioning of the school in the urban ecology. In addition, discussions will include considerations of curriculum, organization, financing, and the legal status of education.
Prerequisites: ED 244, ED 245, and major standing.

## ED 433 Teaching in the Elementary School (4 credits)

Content and methodology of instruction in the elementary school. Includes extensive field observation in schools. This course is designed to supplement specialized courses in the teaching fields.
Prerequisites: ED 244, ED 245, SCI 305, ED 331, MTH 314, and major standing. Must be taken concurrently with ED 455.

## ED 455 Internship

Supervised teaching in the public schools. Students spend approximately fifty days in public school classrooms and participate in such further activities as a supervising teacher may direct. The course includes a seminar dealing with problems of instruction.
Prerequisites: ED 244, ED 245, major standing, concurrent registration in ED 428 (when appropriate) or ED 433, and permission of both the student's major department and the School of Education. A student must perform his or her internship in his or her last or next to last semester (a last semester is one in which a student needs to complete no more than 16 credits to satisfy all graduation requirements). A student must sign up for his or her internship one semester in advance. Internship applications for the Fall Semester must be filed prior to February 1, and applications for the Winter Semester must be filed prior to September 15. The semester prior to the internship, a student must attend an orientation interview. Students may sign up for interviews at the registration line or at the Student Teaching Office. Except for ED 428 or ED 433, a student may not take any other course work concurrently with ED 455.

## ED $460 \quad$ Special Project in Guidance (2, 4, 6, or 8 credits)

Deals with specialized interests in various phases of guidance and personnel work. The specific topics of study will be determined by the student's particular interests. The course may be taken more than once, but for no more than a total of 8 credits. May be elected for independent study.
Prerequisite: Permission of Instructor.

## ED 463 Group Procedures in

 Helping RelationshipsIncludes a study of procedures used in small groups where individuals are helped to better understand themselves and others, to adjust to life situations, and to deal effectively with others in inter-personal relationships. Experience in such a group setting is provided as a major requirement of the course. Students are given an introduction to techniques they may use to provide support and help for others in a group situation.
Prerequisites: ED 363 and permission of Instructor.

## ED 464 Teaching in Manpower (2, 4, 6, or 8 credits)

## Education Programs

Emphasizes the principles and basic teaching skills required in Manpower Education Programs. The student will develop skills in stating instructional objectives, planning activities appropriate for the attainment of the objectives and techniques of evaluating instructional outcomes. The importance of developing a sensitivity to the feelings, ideas and reactions of the students will be stressed. Experiences in the teaching process will be provided through simulation and internships in programs such as General Education Development classes and Manpower Orientation classes. Prerequisites: ED 362, 363, and 364 or permission of Instructor.

## ED 490 Independent Study and Research (2 or 4 credits)

A program of directed individual reading and research.
Prerequisite: Permission of the Department of Teacher Education. Such permission will be granted only if a student presents written evidence that a faculty member has consented to supervise his or her study.
ED 497 Apprentice College Teaching
An elective course open to any well-qualified upperclassman who wins consent of a faculty member to assist in presenting a regular college course to underclassmen.

## EDUCATION

The apprentice should be capable of assuming limited classroom teaching duties. Prerequisite: Permission of the Department of Teacher Education. Such permission will be granted only if a student presents written evidence that a faculty member has accepted him or her as an apprentice.

## GRADUATE COURSE OFFERINGS

## ED 500 Foundations of Reading Instruction

(4 credits)
A basic course in the teaching of reading. Reading as a psycholinguistic process is examined. Assumptions which make varying approaches to reading about the learner and about the learning to read process are analyzed. Strategies in word recognition and comprehension are examined and applied. In addition the students in this course will be introduced to significant reading research and how to read and interpret current research.
The course is a combination of lecture, demonstrations, discussion, and application of techniques in teaching reading via role playing techniques. Required of all students in the MAT Reading Program.

## ED 501 Introduction to the Education of Exceptional Children

This course introduces students to the field of Special Education. Organization of special education programs, types of exceptionalities, growth and development of exceptional children, and community resources are among the topics covered. Prerequisite: Graduate standing.

ED 502 Skills and Competencies for Teachers of Exceptional Children
This course covers a core of competencies and skills deemed desirable for all teachers of exceptional children. These include identification of basic learning processes; understanding sensory, motor and perceptual processes; evaluation of personality and intellectual deviation, effective classroom management techniques, and use of equipment and materials.
Prerequisites: ED 501 or permission of instructor.

## ED 509 The School and the Disadvantaged Child

A study of the difficulties and opportunities arising in the schooling of children from disadvantaged home environments. The course will concern itself with such topics as: clashes between values in school and home environments, communication across subcultural barriers, problems of motivation, etc.
Prerequisite: Permission of Instructor.
ED 511 Interaction Analysis
(4 credits)
The course seeks to improve effectiveness of instruction through a study of pupilteacher interaction. Techniques of observation, methods of gathering data and analyzing behavior in both the affective and the cognitive fields are emphasized. Techniques will include video tapings of teachers and pupils, projects including observational schedules, and preparation and analysis of specific teaching situations. Prerequisites: Admission to a graduate program or permission of Instructor.

## ED 512 Curriculum Development in the Public School

This course is designed for both elementary and secondary school educators interested in the basic elements, processes and concerns which one should consider when contemplating the development of a new curriculum. This course shall consider such fundamental concerns as, the child, the changing demands of society, the educational fields, and the nature of the subject matter, as critical ingredients in curriculum development. Ways of planning and organizing new curriculum with consideration for appropriate curriculum designs shall also be a major part of the course. Possible strategies and teacher responsibilities for bringing about change shall be included in the final parts of this course.

## ED 513 The Organization of the Elementary School

(4 credits)
This course is designed for people interested in the organizational nature of the elementary school. The course shall examine (1) the changes that have occurred historically in the elementary school organization with consideration for the causes of such change, (2) the changing nature of the present day elementary school in light of new curricular advances, and (3) possible future changes which might occur in the organizational structure as suggested by trends in elementary school curriculum. Primary focus shall be upon the teacher's role as a guiding agent of change within the educational environment.

## ED 522 Behavior Modification Techniques for Classroom Management

(4 credits)
This course will introduce teachers to the principles and application of behavior modification techniques. It will include specific methods for changing children's behavior in the classroom with emphasis on the child displaying learning or conduct problems.
Prerequisites: Bachelor's degree and current teaching experience.

## ED 523 Educational Procedures for Children with (4 credits) Learning Disabilities

This course will offer brief, concise, and objective reviews of various theories of learning disabilities and describe the major remedial methods advocated. Among the educational procedures to be discussed will be perceptual-motor, developmental, neuro-physiological, and linguistic approaches to education of children.
Prerequisite: One year's teaching experience.
ED 524 Perception in the School Setting
(4 credits)
The course will deal with the process of perception, its relationship to learning and its application in the classroom. Diagnosis and remediation of perceptual problems in the classroom. Classroom programming emphasizing the theories of Piaget, Gesell Institute, and others.
Prerequisite: Graduate standing.
ED 527 Problems in Educating Mentally
(4 credits) Handicapped Children
This course will review research, describe causes, explore school programs for mentally handicapped children. Methods of teaching mentally handicapped children and use of classroom materials will also be covered.
Prerequisite: Graduate standing.

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## ED 530 Advanced Topics in Literafure <br> (4 credits) for Children

Recent literature for children will be critically analyzed as part of the literary mainstream. In-depth study of major authors and illustrators, genres, historical periods, and controversial issues will be encouraged. Emphasis will be placed on broadening the student's specific knowledge and appreciation of children's literature and on discovering personally effective ways of helping children to more fully understand and enjoy a variety of literary forms.

ED 531 Current Trends in the Teaching of Reading (4 credits)
An intensive examination of current instructional practices, problems, and research in the teaching of reading. Prevailing trends in reading instruction will be evaluated in the light of cumulative research findings concerning the development of reading skills.

## ED 532 Teaching Reading in the Primary Grades (4 credits)

This course is designed to examine principles, practices, and research related to early reading instruction. It will include an analysis of the relationship of the various language arts to reading skills and will place emphasis upon the developmental skills of pupils, starting with kindergarten.

## ED 533 Teaching Reading in the Upper Grades <br> (4 credits)

This course is designed to examine the principles, practices, and research related to the teaching of reading in grade four and higher grades. Emphasis will be placed upon the developmental reading skills in a reading program adjusted to the individual needs of pupils. Particular emphasis will be placed upon reading in the content areas.

## ED 534 Language Arts Instruction in the Elementary Schools

This course is designed to provide a scholarly examination of research findings, materials, and procedures for the development of spelling, composition, speaking, and listening skills in children. Discussions will center on those areas of the curriculum which directly influence language development. The course will demonstrate how the coordinated-language-arts approach and the use of literature appropriate to each age level can balance the growth of communication skills.

ED 536 Teaching Reading to the Special Child (4 credits)
A general discussion of the reading process as it relates to slow learners, emotionally disturbed, handicapped, and gifted children. A study of remedial instructional materials and techniques is included.
Prerequisite: ED 521 or permission of Instructor.

## ED 537 Teaching-Learning Strategies for Reading <br> (4 credits) and Related Language Arts Instruction

This course focuses on a student-centered language arts curriculum which is designed to make current linguistic insights and practices available to teachers at an operational level. Those teaching-learning strategies which are concerned with divergent, elaborative, critical and creative thinking necessary in all aspects of the language arts are of major concern. Participants are invited to experiment with materials and approaches to individual and small group instruction. Meetings are provided

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for sharing and evaluating practices employed by participants in their respective classrooms. Language production and language usage are generated through literature, music, art, science and related areas which serve as catalystic agents. This course is intended for teachers who are seeking many alternatives or options for providing young learners with ample opportunity to develop expressive as well as receptive language skills.

## ED 538 Reading Development in Junior and Senior High Schools <br> (4 credits)

Emphasis is placed on solving problems in the development, improvement, and evaluation of an all-school instructional program in reading.

## ED 540 Theories of Early Childhood Education (4 credits)

Designed primarily for teachers of young children, the course analyzes the many diverse contemporary theories of early childhood education and the broader issues such as "special intervention vs. optimal maintenance," "intrinsic and extrinsic motivation," "readiness," "structure," "education for future vs. education for immediate needs," infant education, daycare models, etc.
Views of the child and his education will be discussed from perspectives of Montessori, Piaget, Bereiter-Englemen, British Infant Schools, behavior modification, as well as developmental or "traditional" schools. Students will analyze these approaches and synthesize from them their own viewpoint.

## ED 550 Practicum in Early Childhood (4, 8 credits) Education

A companion course to ED 540, this will provide students with the opportunity to gain experience working with infants and young children in a variety of settings. Methods and materials used in designing and implementing a program for young children will be demonstrated and will be used by students in microteaching experiences. They will also design a program for young children and implement some facets of it. This is primarily an "on site" course.

## ED 555 Practicum for Teachers of the

(8 credits)
Urban-Rural Disadvantaged
This is a specialized performance-based, field-centered practicum designed to prepare teachers for urban-rural disadvantaged children, as well as to fulfill supervised internship requirements for Michigan elementary certification. The practicum intern progresses through four developmental phases, gaining higher levels of competencies in the teaching strategist function, teaching research function, behavioral management function, school-community function, and membership role function.
Prerequisite: Open to graduate students enrolled in special projects.

## ED 560 Special Problem in Guidance (2, 4, 6, or 8 credits) and Personnel Work

A course dealing with specialized problems in various phases of school guidance and counseling, college student personnel work, or employment counseling. The specific topics will be based upon the clientele and staff needs. The course can be taken more than once, but for no more than a total of 8 credits. It may be elected for independent study.
Prerequisite: Permission of Instructor.

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## ED 561 Guidance and Counseling for Children <br> (4 credits)

Covers principles, practices, and basic techniques of guidance and counseling which teachers may use in the classroom, and basic understanding of procedures used by qualified elementary and junior high school counselors and other pupil personnel workers. The purpose of the course is to provide teachers with a knowledge of approaches they may use to help children develop in areas such as: self-understanding and a positive self-concept, ability to adjust and work with others, productive learning experiences and achievement, interests and an awareness of opportunity, and attainment of self-direction.
Prerequisite: Permission of Instructor.

## ED 562 Assessment of Children

(4 credits)
Covers individual and group analysis techniques used in the assessment of children for curricular planning and instruction, including: the nature and range of human characteristics, appraisal methods for analysis of physical, mental, and social development; techniques for understanding children's special needs, values, selfconcepts, attitudes, learning styles and environmental influences. Includes measurement, evaluation, synthesis of case data, and case conference methods. Prerequisite: Permission of Instructor.

## ED 563 Group Procedures in Guidance

(4 credits)
Concerns a study of group processes and the role of the counselor in using group procedures in the educational setting with children, parents, teachers, and other significant adults. Includes the use of group guidance materials. Provides opportunities in actual or simulated situations for practice with small groups to help teachers become more skillful in working in their classes. Includes experience as a member of a personal growth group to increase self-awareness and awareness of others.
Prerequisite: Permission of Instructor.

## ED 567 Workshop in Guidance and Personnel Services <br> (2, 4, 6, or 8 credits)

This course provides an opportunity for teachers, counselors, and administrators, and other personnel to evaluate and develop various aspects of guidance and student personnel programs. The course is offered upon request from school systems or agency personnel for the purpose of providing in-service education for counselors and others from various work settings in personnel services.
Prerequisite: Permission of Instructor.

## ED 570 Social Studies in the Elementary School

An intensive study of current trends, challenges, characteristics, and content of effective social studies programs, with emphasis on the relationships among discipline areas comprising the social studies. The course will stress application of these studies in urban area elementary schools.
Prerequisites: ED 245 and acceptance into a graduate or certification program or major standing in elementary education.

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This course shall include (a) content of both contemporary and historical topics of Black Africa applicable to new social studies programs in elementary and secondary curricula, (b) material evaluation, selection and use of Black African topics appropriate for elementary and secondary use, and (c) organization and development of an instructional unit on Black Africa for elementary or secondary school use.
Prerequisites: Admission to graduate program or permission of Instructor.

## ED 582 Play Production for Secondary School Teachers

This course is designed to aid secondary school instructors in counting effective dramatic productions. All phases of dramatic production, technical, philosophical and economic will be examined. It will be the intent of the course to provide each instructor with a manual detailing specific skills required for implementation of each primary area of play production. This course will allow teachers to broaden the base of their potential teaching options in the field of dramatics.
Prerequisites: None.

## ED 583 The Middle School (2, 4 credits)

This course will deal with all aspects of the emerging middle school including organizational patterns, curriculum, psychological factors, philosophical bases, and methodologies. An in-depth analysis of the relationship of this organizational pattern to contemporary educational, social and student needs will be made. A feature of the course will be the utilization of various staff members from the fields of philosophy, psychology and education to review the ramification of the middle school.
Prerequisite: ED 512.

## ED 584 The Open Classroom

(2, 4 credits)
This course is designed to provide an in-depth examination of the open classroom as a philosophic as well as practical reordering of the traditional elementary classroom. The course will provide an opportunity for teachers to study and evaluate the open classroom within the contexts of psychological, ecological, social and curricular foundations.

## ED 585 The Law and Public Education

(4 credits)
This course is an introduction to school law for the practicing classroom teacher. It deals primarily with laws relating to public schools and teachers in Michigan and the United States as such laws guide and monitor education. Landmark cases such as Brown vs. Topeka or West Virginia vs. Barnette will be studied, applied and interpreted by both a lawyer and a faculty member. The course offers teachers a unique opportunity to study a most crucial area in public education in a nontraditional team teaching setting.
Prerequisite: Permission of Instructor.

## ED 586 Education of the Spanish-Speaking in the United States

(4 credits)

This course is intended to provide an opportunity for teachers and other educators to become familiar with the negative and positive aspects of Latino Education. Lectures, readings, and discussions will deal with background information about the Spanish-speaking in the U.S.; the problems that confront Latinos in the edu-

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cational system; and the effective and promising approaches to educating the Spanish-speaking.
Prerequisite: Admission to graduate program. (Same as ED 323).

## ED 590 Special Problems in Education (2, 4, 6, or 8 credits)

A course dealing with specialized problems in various phases of education. Depending on the clientele and staff needs, the specific topics may differ from term to term. The course may be taken more than once, but for no more than a total of 8 credits. May be elected for independent study.
Prerequisite: Admission to course in any graduate program or permission of the Department.

## ED 591 Ecology of the Classroom

(4 credits)
The course deals with the ecological context for learning in classroom, school, and community. The primary task will be to describe, to analyze, and to make inferences about the structure of the ecological environment. These findings will then be related to pupil learning.
Prerequisite: Permission of the Instructor or acceptance into any graduate program.

## ED 592 Research Techniques in Education <br> (4 credits)

A study of research techniques in the behavioral sciences and education, methods of gathering evidence, elementary statistical concepts in education, research design, etc. Students preparing to start their terminal project will find the course especially helpful. Prerequisite: Acceptance to candidacy in a master's program in education or permission of Instructor.

## ED 601 History of Education

(4 credits)
A study of the cultural forces (primarily in the West) as they shaped, and were shaped by, the education of the young. Characteristic patterns of educational institutions, changing conceptions of curricula, dominant social and philosophic ideas concerning education, and significant contributions by individual educators represent some of the professional topics which are discussed in their historical settings.
Prerequisite: Admission to course in any graduate program.

## ED 602 Philosophy of Education

(4 credits)
A study of philosophical inquiry in relation to education. Philosophic analysis of educational problems, educational conclusions by systematic philosophers, logical relationships between various philosophical and educational positions are among the topics considered.
Prerequisite: Admission to course in any graduate program.

## ED 603 Comparative Education

(4 credits)
An analysis of education and its relationship to social and economic change in various cultures. Lectures, readings, and discussions will deal primarily with existing educational systems originating in Western culture, such as those of Great Britain, U.S.S.R., Sierra Leone, Kenya, but the course will also include some study of selected utopian educational systems.
Prerequisite: Admission to course in any graduate program.

## ED 604 Sociology of Education

(4 credits)
A study of social and cultural forces and their impact on the organization and practices of schools. An investigation of social dynamics within the schools and the impact of schools on other institutions of society.
Prerequisite: Admission to course in any graduate program.

## ED 611 Problems in Elementary Education <br> (4 or 8 credits)

A study of issues in the organization, curriculum, administration, and methodology of elementary schools. Student needs and preparation determine the specific topics included in a given semester. Students may register for this course once or twice, up to a total of 8 credits.
Prerequisite: Admission to course in a graduate program in elementary education or in reading instruction.

## ED 612 Curriculum Studies

(4 credits)
A study of practices in and research on curriculum in modern elementary schools. The course will investigate the sum total of experiences provided for young people in school settings and will challenge established practices on the basis of recent curricular developments.
Prerequisite: Admission to course in a graduate program in elementary education or in reading instruction.

## ED 620 Social Deviancy in Special and Regular Education

(4 credits)

This course will critically analyze social deviance from an individual, institutional and societal perspective. The major focus will be in assisting the regular and special teacher in the prevention, correction, and management of social deviancy in the school setting.
Prerequisite: Admission to graduate program in Special Education or permission of Instructor.

## ED 621 Management and Curriculum for Emotionally Disturbed Children

(4 credits)
A study of the diagnosis and treatment, curriculum development, methods and material, and classroom procedures in programs for emotionally disturbed children in educational and clinical settings. The use of video tapes, role play, demonstrations, as well as direct observation of emotionally disturbed children will be included.
Prerequisites: ED 521 and one graduate course in psychology.

## ED 622 Practicum in Special Education

(6 credits)
A specialized field experience in a special education setting. Observation, tutoring, diagnostic and prescriptive teaching, and use of materials and equipment are part of the experience. ED 623 must be taken concurrently.
Prerequisite: Completion of all other requirements for the Master of Arts in Teaching in Special Education, or permission of Instructor.

## ED 623 Seminar in Special Education

( 2 credits)
An action research project completed in conjunction with the Practicum in Special Education. Field testing intervention techniques, designing new education models or evaluating special education instruments are examples of projects. Must be taken simultaneously with ED 622.

## ED 624 Directed Teaching in Special Education (6 credits)

This is a supervised full-time teaching experience in classrooms corresponding to the student's concentration in special education. Those qualifying for exemption from the supervised teaching requirement in the certification code may not take this course.
Prerequisites: Acceptance to degree condidacy in a Master's program in special education and approval by the director of the special education program.

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## ED 627 Physical and Social Competencies of Handicapped Children <br> (4 credits)

The course will identify the physical and social competencies necessary for mentally handicapped children to become productive citizens. Work skills and vocational opportunities will also be explored.
Prerequisite: Admission to graduate program in special education or permission of Instructor.

## ED 630 Seminar in Reading (4 credits)

The validity, reliability, results, and conclusions of research and other literature in selected areas of reading and language arts will be carefully analyzed. The course will be conducted in traditional seminar fashion. Since this course is a seminar, enrollment will be limited.
Prerequisites: Two courses in reading instruction or permission of Instructor.

## ED 631 Problems in Reading Instruction (4 or 8 credits)

A study of diagnostic, methodological, organizational, and administrative issues in recding programs. Student needs and preparation determine the specific topics included in a given semester. Students may register for this course once or twice up to a total of 8 credits.

## ED 632 Diagnosis of Reading Disabilities

(4 credits)
A laboratory course concerned with analysis and study of factors which contribute to or precipitate reading disabilities in elementary and/or secondary school pupils. The course includes selection and administration of both informal and standardized tests and also deals with the preparation and evaluation of case reports. Prerequisites: ED 500 or equivalent or permission of Instructor.

## ED 633 Correction of Reading Disabilities (4 credits)

A laboratory course designed to focus attention on methods, materials, and practices pertaining to the instruction of disabled readers. The course provides opportunities to plan, organize, and conduct remedial instruction for children under the supervision of the instructor.
Prerequisites: ED 632 must be taken in the semester immediately preceding enrollment in this course.

## ED 634 Advanced Study of Classroom Strategies <br> (4 credits)

 in an Infegrated Language Arts CurriculumThe theory, research and practice concerned with instructional strategies in all areas of the curriculum which serve to promote the development of readinglanguage abilities will be studied. Particular attention will be given to a process curriculum and current linguistic concepts which make adequate provision for a range of language inducing and language producing options. Participants will be expected to prepare materials which will cause young learners to engage in experimenting, examining, organizing, systematizing, analyzing and evaluating the reading-language abilities they employ. Attention also will be given to a study of changes in the language behavior of young people for the purpose of evaluating linguistic maturation.
Prerequisite: ED 537 recommended but not required.

ED 635 Organization of Reading Programs
(4 credits)
This course is designed for Masters candidates in reading who plan to become reading specialists or reading consultants. Course topics include (1) conducting a needs assessment of the language arts curriculum (2) program planning in reading (3) guidelines for staff development (ongoing and long range inservice) (4) analyzing reading materials (5) defining the reading consultant's role (6) strategies for working with classroom teachers in their classroom. Course requires field work in a school, preferably where the graduate student is presently employed.
Prerequisites: ED 632, 633 or permission of Instructor.

## ED 664 Consultation in Pupil Personnel Work (4 credits)

Deals with techniques of consultation used by school counselors to help teachers, parents, and administrators to help children. Emphasis is placed on providing support for teachers of regular classes to enhance learning and adjustment of children and in the effective utilization of various school pupil personnel specialists, persons in the community, and development of good relationships among the significant adults in the life of each child. The course includes involvement in this work in an actual school setting and the adjacent community.
Prerequisites: Permission of Instructor.

## ED 665 Guidance Information and Career Development <br> (4 credits)

Emphasizes the process of providing guidance information and of helping elementary and junior high school children develop self understanding in regard to their interests, abilities, and opportunities for education and work, as a basis for decision making. A field experience applying these concepts will be a course requirement. Covers vocational development theory, psychological and sociological aspects of career choice, and systematic approaches to provide educational, occupational, and personalsocial information. Computer-assisted information systems, storage of pupil information, and educational data processing as an aid to pupil personnel service is studied.
Prerequisite: Admission to the program in guidance and counseling or permission of Instructor.

## ED 666 Practicum in Guidance and Counseling (4 credits)

A culminating course in the guidance and counseling sequence in which the student studies and applies counseling theory and practice and develops his own counseling skill in individual and group counseling procedures. Students are supervised in various work settings such as schools, the counseling laboratory and community agencies. The age of counselees will be appropriate to the individual needs of each practicum student. Analysis of audio and/or video tapes of simulations and actual counseling sessions will be conducted individually with a supervisor as well as in small practicum groups. Registration for 8 credits permits a more extensive field experience.
Prerequisite: Admission to the program in guidance and counseling or permission of Instructor.

## ED 699 Terminal Project

(4 credits)
The planning and execution of a significant research or project in accordance with the advice of the student's guidance committee.
Prerequisites: Admission to degree candidacy in a graduate program in elementary education or reading instruction and written approval of the student's guidance committee. Students should request such approval from their advisers early in the

## EDUCATION

Fall Semester for registration in the Winter Semester, and early in the Winter Semester for registration in the Spring and Summer Sessions or Fall Semester. During the preparation of the terminal project students must remain in constant touch with their advisers and must present the completed project no less than two weeks before the end of classes in the term of graduation.

## RELATED COURSES

SCI 305 (Science in the Elementary School), SCI 505 (Basic Concepts and New Developments in Science), SS 570 (Social Studies in the Elementary School) and MTH 513 (Topics in Elementary School Mathematics) are four courses appropriate for many students preparing to teach. For course descriptions see pp. 284, 280 and 193 of this catalog.

HI 261 Fundamentals of Human Interaction (2 or 4 credits)
An introduction to individual and small group interaction. Consideration is given to interpersonal communication, group processes, group membership, group leadership, techniques of developing and maintaining and helping relationship, decision making, observation and listening skills, change processes, personal growth processes, and self awareness. The course assists students to develop awareness of their potential and provides preparation to operate more effectively in community service activities. Role playing, demonstrations, video recordings, simulations and other experiential activities constitute a major portion of the instructional program.

## SCHOOL OF ENGINEERNG

## OFFICERS OF ADMINISTRATION

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Dean
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Ph.D., University of Arizona

## BOARD OF VISITORS

The Board of Visitors for the School of Engineering are among the leaders of industry in southeast Michigan. They assist the School of Engineering in educating students to meet the rapidly expanding requirements in the technical world. The Board is available as a body or individually for consultation and advice on such matters as curriculum, facilities, equipment requirements, special subjects, and long-range planning.

Members of the Board are:
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## UNDERGRADUATE CURRICULUM IN ENGINEERING

The undergraduate engineering program at Oakland University is built on the broad intellectual base of the University's imaginative program in liberal arts and the sciences and is designed to provide a comprehensive academic preparation for students

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planning to enter the engineering profession. It is intended especially for the relatively able student entering one of the newer fields of engineering and leads to the degree of Bachelor of Science. A growing number of students also find that an undergraduate education in engineering provides excellent preparation for careers such as business, law, and medicine.

The curriculum stresses the fundamentals of science and mathematics as well as of engineering. During the freshman and sophomore years in particular, each student majoring in engineering takes extensive work in mathematics and the physical sciences as a foundation for his or her professional studies. A series of engineering courses ranging from thermodynamics and electronics to the mechanics of solids completes the foundation. The content of the engineering courses in this core curriculum is essential to the preparation of professional engineers. The schedule is arranged so that a student takes at least one course in engineering each semester, starting in the freshman year. This early introduction to engineering provides career motivation and alleviates crowding of technical courses late in a student's program. The undergraduate program emphasizes the digital computer and electronic analog computer simulation. Students are introduced to digital computer FORTRAN programming in the freshman year and computers are used in each subsequent engineering course.

During his or her senior year, the engineering student specializes in a particular area of his or her own choice. Twelve hours of credit in 400 level courses are required. Regular advanced courses at the 400 level are available in such areas as electronics, control systems, computer science, coherent optics, materials, and thermal sciences. Additional courses on Special Topics (EGR 405) are offered for credit in a variety of other engineering fields. To prepare the student for independent project work in his or her senior year, the engineering laboratories taken in the first six semesters consist of open-ended experiments in which the student is encouraged to modify, redesign, and extend the assigned experiments. The student machine shop and the electronics shop may be used to construct apparatus not otherwise available, and the student may call upon an instrument maker and an electronics technician for aid in designing more complex pieces of equipment. The Senior Engineering Project (EGR 409) is an extension of this concept. In this course the student and his or her professor agree upon a design project, the schedule for its completion, the cost of materials and labor, and the number of credits to be earned by the student. This concept of individual responsibility tends to stimulate in the student

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the maturity and self-reliance required of every successful engineer and provides opportunity for study in depth in a specialized area of interest.

The School of Engineering has pioneered an exciting involvement of undergraduates in research. A number of students from the freshman to the senior levels participate in the program and are paid for their efforts. The student research assistants make a definite contribution to the various research laboratories, and they derive increased maturity, responsibility, and technical competence as a result of their participation.

## ACCREDITATION

The undergraduate engineering program of Oakland University has been fully accredited by the North Central Association of Colleges and Secondary Schools and by the Engineers' Council for Professional Development, which is the official accrediting agency for the engineering profession in the United States and Canada.

## PREPARATION FOR ADMISSION

## Entering Freshmen

Entering freshmen planning to major in engineering should present at least three years of high school mathematics, including one-half unit of trigonometry. Additional high school courses in mathematics, the laboratory sciences, and English are most desirable. Preparation in elementary drafting and machine shop practice is useful but not necessary.

## Transfer Students

Courses in mathematics, English, and the physical sciences essential to the study of engineering are available in many liberal arts colleges and community junior colleges. Often these are offered as a part of a complete two-year program designed to meet the requirements for study of engineering at the professional level in other colleges and universities.

Students with any amount of college credit will be considered for transfer admission. However, since the engineering program at Oakland University is based on a strong foundation in mathematics and the physical sciences, a student planning to transfer into it should carefully consider the advantages of completing such basic pre-engineering programs before applying for transfer.

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As many as possible of the following credits should be presented for transfer: analytic geometry and calculus including linear algebra and differential equations (four courses); introductory college physics covering mechanics, electricity and magnetism, wave motion and optics and using the calculus in its instruction (two courses); modern physics covering atomic and nuclear phenomena (one course); college chemistry including laboratory (one or two courses). Other credits presented in mathematics, science, or engineering will be evaluated with reference to the engineering courses required at Oakland University for graduation. Technician course credits are not generally applicable to these requirements. Students must have a grade of " C " or better in each course presented for transfer credit.

Students planning to transfer are encouraged to accumulate equivalents of certain general education requirements of the Oakland University engineering program outlined on p. 342, but not at the expense of the mathematics and physical science requirements outlined in the preceding paragraph.

See pp. 15-17 for other information regarding admission of transfer students.

## REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE

A student with a major in engineering must meet the following requirements in order to graduate:

1. Have completed at least 128 credits.
2. Have completed 32 credits at Oakland University. At least 16 of these credits must be in engineering.
3. Have taken the last 8 credit hours needed to complete baccalaureate requirements in residence at Oakland University.
4. Have a cumulative grade point average in courses taken at Oakland University of at least 2.0.
5. Have demonstrated writing proficiency by meeting the university standard in English Composition.
6. Have completed the general education requirement specified by the School of Engineering ( 24 credits).
7. Have completed the engineering core program, which consists of EGR 101, 172, 215, 216, 225, 241, 326, 344, 345, and 361 (38 credits).

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8. Have completed the science and mathematics core program consisting of CHM 104 (or CHM 114 or CHM 124); CIS 180; MTH 154, 155, 254, and 255; and PHY 151, 152 and 158 ( 34 credits).
9. Have completed the elective package which consists of:
(a) 24 credit hours of directed electives distributed over three groups:
Group I-At least 12 credit hours in 400 level courses chosen to meet career objectives and approved by the student's adviser.
Group II - At least 4 credit hours chosen from the approved list of courses in Life, Environmental and Social Sciences.
Group III - At least 4 credit hours chosen from the approved list of courses in Mathematics and Physical Sciences.
The remaining 4 credit hours may be chosen from any of the three groups.
(b) 8 credit hours of free electives.
10. Have attained a cumulative grade point average of at least 2.0 in the engineering core courses and the 400 level elective courses.
11. Have completed an application for degree card at the Office of the Registrar.
12. Be in substantial compliance with all legal curricular requirements.

## Proficiency Testing

The term "complete" as used above in stating the degree requirements means either to establish credit in a course by earning a passing grade in the course, by passing a competency examination or by receiving transfer credit from another institution. In certain circumstances a course requirement may be formally waived by a successful Petition of Exception to the Committee on Instruction and Appeals of the School of Engineering. Engineering students may obtain Petition of Exception forms from the office of the Dean of the School of Engineering.

## Writing Proficiency

Students in engineering must demonstrate proficiency in writing by passing an essay test prepared and graded by the Department of Learning Skills. Freshmen will have an opportunity to take the test before commencing their first semester. If a student passes the test no further course work in English Composition will be

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required. Students not achieving the proficiency standard will be counselled to take certain English Composition courses offered by the Department of Learning Skills prior to another attempt at the essay test.

Transfer students will be deemed to have met the writing proficiency standard upon presentation of two college level courses (at least 6 credits) in English Composition.

## GENERAL EDUCATION

Oakland University requires all undergraduates in degree programs to share in a series of courses distributed so as to provide a broadening intellectual experience in liberal education.

To satisfy the general education requirement students with a major in engineering must:

1. Complete 24 credit hours in General Education courses. Up to eight hours in English Composition courses may be presented as part of the 24 credits in General Education.
2. Complete at least four credit hours in three of the four designated field groups, and at least eight credit hours in one of the field groups. The field groups are Arts, Letters, Social Science and Area Studies. Academic Units sponsoring the field groups are:

Arts
Art
Music
Theater

## Letters

*Classics
English
History
Modern Languages and Literatures
Philosophy and Religion
(*Literature courses in translation or in the foreign language)

## Area Studies

Interdepartmental Committee on Area Studies
(African Studies, East Asian Studies,
South Asian Studies, Latin American Studies, Slavic Studies)

It is also possible for engineering students to meet the general education requirements by enrollment in Allport College, Charter

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College, or New College. Engineering students taking one of these latter options, however, may find they need more than eight semesters in which to meet the requirements for the degree of Bachelor of Science.

## DIRECTED ELECTIVES

The following courses are approved as directed electives for students in engineering:

| Life, Environmental \& Social Sciences | Mathematics \& Physical Sciences |
| :---: | :---: |
| Biology courses numbered 111 and higher | All Chemistry courses except: CHM 104, 114, 124 and 191. |
| ENV 181, 372 | MTH 226 and mathematics |
| PSY 231, 261 | courses numbered 325 |
| SOC 255, 260 | and higher |
| ECN 216, 217 and Economics courses numbered 300 and | Physics courses numbered 317 and higher. | higher

MGT courses numbered 300
and higher

## CAREER PREPARATION IN ENGINEERING

The engineering program at Oakland University is designed to allow the maximum possible latitude in the choice of industrial careers; it also prepares students who wish to enter outstanding graduate schools. Serving both these goals, the engineering core program and advanced electives combine to form an overall program at Oakland University that is equivalent in scope and depth to the typical requirements in specialized curricula in other fine schools of engineering. The School of Engineering at Oakland University, however, does not force a student to make a premature choice of career specialization. The student, in consultation with his or her adviser, selects a schedule of advanced elective courses in the area of his or her choice.

Career specialization in areas such as engineering management, bio-engineering and engineering chemistry normally requires advanced work in a department outside of engineering. The advanced elective package may be used outside of engineering to pursue such specializations with the consent of the student's adviser. The student should note, however, that he or she will probably have to use free electives to obtain the prerequisites for advanced work in these areas.

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## OPTIONS

Listed here for guidance are some of the typical options available to engineering students.

## Computer Science

Computer science consists of the design and abstract modeling of information processing systems for application to modern problems. The design of computer systems includes the development of internal machine operating procedures and of new computer languages as well as design of the physical components. These three subjects are therefore generally referred to as computer architecture, software, and hardware, respectively.

The modern engineering program at Oakland University also places major emphasis on the use of the computer as a tool in solving a wide range of technological and scientific problems. Following the core program, the student interested in computer science should elect Applied Numerical Methods (CIS 480), Introduction to Information Structures (CIS 382), Hybrid Computation and Simulation (EGR 481), and Switching Theory (EGR 485).

The School of Engineering also offers a Concentration in Computer Science designed for interested students in the College of Arts and Sciences and the School of Economics and Management. Programs are jointly approved and administered by a Concentration committee and by the student's major department, and are composed of a minimum of 16 credits of course work in computer science with additional courses specified by the department of the student's major. More details about this program may be found under Concentration in Computer Science in the Interdepartmental Programs in the School of Engineering.

## Electrical Engineering

The student preparing for specialization in electrical engineering should elect Signal and System Analysis (EGR 425) and Advanced Flectronics (EGR 426) and should give consideration to further work in Communication Systems (EGR 427), Automatic Control Systems (EGR 431), or Electric and Magnetic Fields (EGR 445).

## Systems Engineering

The systems engineer develops automatic controls for a wide variety of physical processes. To the core program the student in

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this field should add Signal and System Analysis (EGR 425), Automatic Control Systems (EGR 431), Analysis of Nonlinear Systems (EGR 432), and The City as a System (EGR 405).

## Fluid and Thermal Sciences

Engineers working in the fluid and thermal sciences area are concerned with the analysis and design of systems associated with the conversion and transport of mass, momentum, and energy. In addition to the core program, a student interested in this field of engineering should consider electing Thermal Energy Transport (EGR 448), Fluid Transport (EGR 449), Direct Energy Conversion (EGR 454), and Special Topics (EGR 405).

## Mechanical Engineering

The student wishing to enter mechanical engineering should elect Thermal Energy Transport (EGR 448), Fluid Transport (EGR 449), Advanced Mechanics of Materials (EGR 461) as well as courses in systems or energy conversion, depending upon his or her particular interests.

## Materials Engineering

To the materials courses in the core program, students in materials engineering should consider adding courses in Modern Physics and in chemistry. Advanced work in electronic properties of materials and mechanical properties of materials is available through Electronic Properties of Materials (EGR 472), Solid State Electronic Devices (EGR 473), and Mechanical Properties of Materials (EGR 462).

## Coherent Optics

As preparation for a career in coherent optics the student should elect Signal and System Analysis (EGR 425), Electric and Magnetic Fields (EGR 445), and Coherent Optics (EGR 450).

## Energetics

The student preparing for a career involving such applications as plasma engineering, magnetohydrodynamics, ion propulsion, and fuel cells should add to the core program Electric and Magnetic Fields (EGR 445) and Direct Energy Conversion (EGR 454).

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## Environmental Engineering

Specialization in environmental engineering may be achieved through environmental science electives, Special Topics (EGR 405), Senior Engineering Project (EGR 409) and through cooperation with the Departments of Biological Sciences and Chemistry.

## Engineering Management

Engineering students interested in technical sales and technical management will wish to add electives from the School of Economics and Management. Prerequisite courses include Microeconomic Analysis (ECN 216), Macroeconomic Analysis (ECN 217), and Management Information and Control Systems I (MGT 200). Advanced electives may be drawn from Management Strategies and Policies (MGT 435), Operations Research (MGT 442), and Advanced Economic Theory (ECN 417).

## Bio-Engineering

Biological engineering is one of the rapidly developing frontiers of engineering. To pursue the bio-engineering option students should take Physiology (BIO 221) or Histology (BIO 223), and Elementary Biophysics and Cellular Biochemistry (BIO 225, 226) as preparation. Advanced work may be taken through Special Topics (EGR 405) and in cooperation with the Department of Biological Sciences.

## Engineering Chemistry

Options in physical chemistry, biochemistry, and environmental chemistry are available to students interested in an engineering chemistry specialization. Since the options do not all have the same prerequisites interested students are urged to consult their advisers early in their program to plan their electives.

## Other Fields

Many fields of student interest such as nuclear engineering, for example, are primarily areas of graduate specialization. The program at Oakland University gives excellent preparation for these fields. Some areas of undergraduate specialization such as mining engineering and textile engineering are not offered at Oakland University. The prospective student should consult the Assistant Dean of Engineering for Undergraduate Programs on the availability of preparation for any particular field of interest.

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## INTERDEPARTMENTAL PROGRAMS

Students in engineering who wish to add an established concentration or otherwise participate in an interdepartmental program offered outside of the School of Engineering must apply to the chairman of the appropriate concentration committee or of the department involved. See Offices of Interdepartmental Programs p. 68.

## Premedical Concentration

Engineering students planning a career in the medical or dental profession should complete the concentration in premedical studies. This concentration is offered through the College of Arts and Sciences, and its detailed requirements are given on p. 276.

It is intended to satisfy the minimum requirements for admission to the various medical and dental schools in Michigan and elsewhere. By careful selection of elective courses students may complete requirements for the premedical concentration while also satisfying the requirements for the degree in engineering. The premedical concentration may be completed by taking the courses beyond the science and mathematics courses specified for the core program in engineering as follows:
a) Biology: 2 courses ( 10 credits), including laboratories.
b) Chemistry: 3 courses ( 15 credits), including laboratories.

By proper selection of these courses in consultation with his or her adviser the student may fulfill advanced elective requirements in the engineering program while also meeting the requirements of the premedical concentration.

## Concentration In Computer and Information Science

The Concentration in Computer Science is offered by the School of Engineering and is available on a joint basis to students within a department of the College of Arts and Sciences or the School of Economics and Management as well as to students in the School of Engineering. Many such combinations are feasible. With a major in mathematics, physics, chemistry, biology or economics, a student may wish to emphasize numerical and scientific computing aspects of computer science. With a major in English, modern languages, history, philosophy, psychology, sociology, or anthropology, a student may wish to take courses in the computer science concentration that emphasize non-numerical and symbolic data processing, language translation, and list processing. With a major in

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economics and management, a student may wish to take courses oriented toward application of computers in management data processing.

To participate in the Concentration on Computer Science the student must have completed 32 credit hours, including at least one CIS course, and must have obtained the approval of an authorized adviser for the Concentration. The student should apply to the Committee for the concentration in Computer and Information Science by completing the application forms available in Room 248 Dodge Hall. The student's program will then be developed by joint action of the student, the departmental adviser and the Committee.

A minimum of 16 credits in approved courses (including at least 8 credits in CIS courses) is required in the concentration, with the possibility of additional work being required in some instances.

The course offerings in Computer and Information Science are listed on p. 354 of this catalog.

## PLAN OF STUDY

To assure orderly progress towards satisfying degree requirements each engineering student who has earned more than 56 credits is encouraged to fill out a Plan of Study. The Plan of Study form is a timetable of courses to be taken for undergraduate credit. It is usually submitted during the semester in which he or she completes 56 credits. Transfer students should submit a Plan of Study at the time they enter Oakland, regardless of the number of credits earned. The forms are completed by the student in consultation with his or her adviser, and they are then approved by the Dean's Office. Acceptance of the Plan of Study indicates approval by the School of the student's program. In rare cases students who failed to seek advisers concurrence of their program or fill out a Plan of Study have encountered difficulties in completing the degree requirements on schedule.

## TYPICAL ENGINEERING PROGRAM

## Semester 1

English Composition or
Distribution Requirement
EGR 101
MTH 154 or 134
CHM 104, 114, or 124

Semester 2
English Composition or
Distribution Requirement
EGR 172
MTH 155 or 154
CIS 180

## Semester 3

Distribution Requirement
EGR 215
MTH 254
PHY 151

## Semester 5

Distribution Requirement
EGR 225
EGR 241
EGR 361

## Semester 7

Group I Elective*
Group I Elective*
Directed Elective**
Free Elective***

Semester 4
Distribution Requirement
EGR 216 (2 credits)
MTH 255
PHY 152
PHY 158 (2 credits)

## Semester 6

Distribution Requirement
EGR 326
EGR 344
EGR 345

## Semester 8

Group I Elective*
Directed Elective**
Directed Elective**
Free Elective***
*Group 1-400 level courses
Group 2-Environmental, Life and Social Science
Group 3-Mathematics and the Physical Sciences
**Directed Elective-at least one from Group 2, one from Group 3 and the third from Groups 1, 2 or 3. Non-Science and Mathematics Electives in Group 2 may be used to satisfy Distribution Requirements.
***Free Electives-may be chosen from Groups 1, 2 or 3 or from any other credit courses offered by the University.

## REGULATIONS GOVERNING COURSES

1. A course sequence joined by a hyphen (e.g., MTH 154-155) must be taken in the order indicated. The first course in such a sequence is regarded as a prerequisite to that following. A department or school has, however, the right to waive these and any other prerequisite course requirements.
2. Course numbers separated by commas (e.g., HST 214, 215) indicate related courses, which may be taken in any order. Departmental or program requirements may govern the order in certain cases, however.
3. University Courses and courses numbered 100 to 299 are introductory or intermediate undergraduate courses. Courses numbered 300 to 499 are advanced courses primarily for undergraduates.

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Courses numbered 500 and above are primarily for graduate students.
4. The Registrar reserves the right to cancel any course in which there is insufficient registration.

## UNDERGRADUATE COURSE OFFERINGS IN ENGINEERING

EGR 005 Pre-engineering Topics (4 credits)
1 Graphical data reduction, statistics, economics, energy, and thermodynamics as well as human factors and information concepts are applied to the solution of engineering design problems. Offered in the Fall Semester and Summer Session.
EGR $101 \begin{aligned} & \text { Introduction to Engineering } \\ & \text { Design (Core) }\end{aligned} \quad$ (4 credits)
Graphical data reduction, statistics, economics, energy, and thermodynamics as well as human factors and information concepts are applied to the solution of engineering design problems. Offered in the Fall Semester.

EGR 108 Drawing
Introduction to the use of drafting instruments and drafting procedures. Geometric construction, geometric projection, dimensioning, tolerancing and graphical symbols. Offered in the Winter Semester.
Prerequisite: Consent of the Instructor.
EGR 111 Shop Practice
(2 credits)
Introduction to basic machining principles and machine shop techniques, use of lathes, milling machines and other power machines. Emphasis is on practical experience. Offered in the Fall Semester.
Prerequisite: Consent of the Instructor.
EGR 172 Properties of Materials (Core)
(4 credits)
The atomic, molecular, and crystalline structure of solids, including a description of $x$-ray analysis, metallography, and other methods for determining structure; correlation of structure with the electric, magnetic, and mechanical properties of solids. Offered in the Fall and Winter Semesters.

- EGR 205 Engineering Topics
(4 credits)
Introductory and intermediate study in special areas. May be taken more than once. Offered in the Fall and Winter Semesters.

Introductory work on laboratory projects; topics to be chosen by the student in consultation with an instructor. May be taken more than once. Offered in the Fall and Winter Semesters and in the Spring and Summer Sessions.

## EGR 215 Statics and Dynamics (Core)

(4 credits)
A vector treatment of mechanics which includes particle statics, equilibrium of rigid bodies, analysis of elements, kinematics, and kinetics of particles and rigid bodies, applications of dynamics to machine elements, analytic solutions of dynamical systems. Offered in the Fall and Winter Semesters.
Prerequisites or corequisites: MTH 154 and PHY 151.

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- EGR 216 Dynamics (Core)
(2 credits)
A vector approach to the kinemetics and kinetics of particles and rigid bodies. Analytical and numerical solutions of dynamical systems. Offered in the Fall and Winter Semesters.
Prerequisite: EGR 215.


## - EGR 225 Lumped-Paramełer Linear Sysłems (Core) (4 credits)

A unified approach for steady-state and transient analysis of electrical, mechanical, fluid, and thermal lumped-parameter linear systems. Network elements and formulation procedures for differential equations. Analogies, phasors, impedance concept, natural and forced behavior, resonance, complex frequency plane, Laplace transforms, frequency response, network theorems. Use of analog and digital computers to solve differential equations for these systems. Offered in the Fall and Winter Semesters. Prerequisites: EGR 215, PHY 152, and MTH 155.

## - EGR 241 Thermodynamics (Core)

(4 credits)
Introduction to fundamental concepts, thermal energy, thermodynamic properties and equilibrium, basic physical laws of thermodynamics; entropy and its consequences, reversible energy transfers in both open and closed systems; application of thermodynamics to systems involving energy conversion and transport. Offered in the Fall and Winter Semesters.
Prerequisites: CHM 104, 114 or 124.
Prerequisite or corequisite: MTH 254.

- EGR 326 Electronic Circuit Design (Core)
(4 credits)
Analysis and design of solid-state electronic circuits. Non-linear dissipative characteristics, large-signal analysis of amplifiers, small-signal analysis of active two ports, voltage amplification, transducers, feedback. Offered in the Fall and Winter Semesters. Prerequisite: EGR 225.
Prerequisite or corequisite: MTH 254.


## EGR 344 Fields and Waves (Core)

(4 credits)
Introduction to distributed parameter systems and wave phenomena, transmission lines, scalar and vector waves, interference and diffraction, Fourier analysis, introduction to the electromagnetic field. Offered in the Fall and Winter Semesters.
Prerequisite: EGR 225.

## - EGR 345 Introduction to Fluid and Thermal Energy Transport (Core) <br> (4 credits)

Fundamentals of fluid mechanics, properties of fluids, conservation principles; viscous and inviscid flow; laminar and turbulent flow; boundary layer theory; basic concepts of heat transfer; fundamental modes: conduction, convection, and thermal radiation; applications to problems of engineering interest. Offered in the Fall and Winter Semesters.
Prerequisite: EGR 241.

## - EGR 361 Mechanics of Materials (Core)

An introduction to the mechanics of deformable bodies; the distribution of stress and strain in beams, shafts, columns, pressure vessels, and other structural elements. Yield and fracture criteria of materials with applications to design. Experimental and computer-generated solutions to complex stress analysis problems, including laboratory use of strain gages, photoelasticity, etc. Offered in the Fall and Winter Semesters. Prerequisites: EGR 215 and MTH 155.

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## 1 EGR 400 Engineering Seminar

Lectures and discussions conducted by members of the faculty, graduate students, and invited speakers from industry and other universities. Various topics will be covered, but emphasis will be on current research interests of the School. May be taken for a maximum of 2 credit hours. Offered in the Fall and Winter Semesters.

- EGR 405 Special Topics

Advanced study in special areas. May be taken more than once. Some topics offered recently have included:

1. Environmental Engineering
2. Engineering Probability and Statistics
3. The City as a System
4. Materials
5. Computer Architecture
6. Bio-Systems Engineering
7. Modeling of Ecological Systems

Variously offered in the Fall and Winter Semesters.

- EGR 409 Senior Engineering Project (2, 4, 6, or 8 credits) Independent work on advanced laboratory projects; topics to be chosen by the student in consultation with an instructor. May be taken more than once. Offered in the Fall and Winter Semesters and in the Spring and Summer Sessions.
- EGR 425 Signal and System Analysis
(4 credits)
The analysis and synthesis of complex signals and the response of linear systems to complex signals. Singularity functions, orthogonal bases, Fourier synthesis of periodic signals. Exponential synthesis of aperiodic signals, double-sided Laplace transforms, Fourier transforms. Frequency response, time-bandwidth reciprocity, generalized modulation and sampling. A wide range of applications to engineering systems. Offered in the Winter Semester.
Prerequisites: EGR 326 and MTH 254.
- EGR 426 Advanced Electronics
(4 credits)
A continued study of concepts and techniques of electronics selected as examples of advanced thinking. Recent areas of concentration have been: Communication Electronics: high-frequency transistor behavior, design of multistage transistor behavior, design of multistage transistor amplifiers, modulation and demodulation, computer simulation of modulated waveforms, oscillators, resonant load amplifiers; and pulse techniques: linear wave shaping, pulse transformers and transmission lines, switching characteristics of devices, clipping and clamping circuits, multivibrators, negativeresistance devices, and switching circuits. Offered in the Winter Semester.
Prerequisite: EGR 326.
- EGR 427 Communication Systems
(4 credits)
An introduction to the problem of communication in the presence of noise. Introductory probability, random variables, and the random process, with application to the characterization and analysis of noise and random signals. Amplitude and frequency modulation systems, pulse modulation techniques, and the elements of detection theory. Offered in the Fall Semester.
Prerequisites: EGR 344 or EGR 425.


## EGR 431 Aułomatic Control Systems

(4 credits)
Review of basic methods for determining the equations of motion of various types of linear components and systems. Transient response to deterministic inputs and the definition of Lagrangian stability. The root locus method. Open- and closed-loop frequency response. Bode and Nyquist diagrams. Compensating networks. Use of analog computers in control system design. Offered in the Winter Semester.
Prerequisites: MTH 255 and EGR 326.

## EGR 432 Analysis of Nonlinear Systems

(4 credits)
Analysis of first- and second-order nonlinear physical systems with many engineering applications. Piecewise-linear models for zero-memory systems. Phase-plane analysis for autonomous systems; singular points, equilibrium, limit cycles. Stability analysis via theorems of Poincaré, Lienard, and Bendixson. Perturbation theory with applications to both forced and autonomous systems, averaging methods. Subharmonics, jump phenomena, and frequency entrainment in forced systems. Offered in the Fall Semester. Prerequisites: MTH 255 and EGR 326.

## EGR 445 Electric and Magnetic Fields

(4 credits)
Introduction to the fundamental concepts of electric and magnetic fields. Fundamental laws, basic postulates, Maxwell's equations. Electrostatics, magnetic fields of steady currents, time varying fields, waves, transmission lines, reflection and refraction at interfaces, guided waves, radiation and elementary radiators. Use of computers for solution of practical problems. Offered in the Fall Semester.
Prerequisite: EGR 344.

## EGR 448 Thermal Energy Transport

(4 credits)
A continued study of the basic concepts, properties, and descriptions of the three fundamental modes of heat transfer (conduction, convection, and thermal radiation); theoretical, numerical, and analogical methods of analysis of steady, transient, singleand multi-dimensional problems; with laboratory. Offered in the Winter Semester. Prerequisites: EGR 345 and MTH 255; or consent of the instructor.

- EGR 449 Fluid Transport
(4 credits)
A continued study of the fundamentals of fluid mechanics and their applications; potential flow of inviscid fluids, laminar and turbulent boundary layer theory, compressible flow; similarity, modeling, and dimensional analysis. Offered in the Fall Semester.
Prerequisites: EGR 345 and MTH 255; or consent of the Instructor.


## EGR 450 Coherent Optics <br> (4 credits)

Current developments in the field of coherent optics; two-dimensional Fourier analysis; scalar diffraction theory; Fourier transforming and imaging properties of lenses; interference and partial coherence; recent advances in holography and optical data processing. Offered in the Winter Semester.
Prerequisite: EGR 344.

## EGR 454 Direct Energy Conversion

(4 credits)
Thermoelectric engines, thermionic converters, magnetohydrodynamic engines, photovoltaic effect and solar cells, free energy and fuel cells.
Prerequisites: EGR 241 and EGR 326.

## EGR 461 Advanced Mechanics of Materials

(4 credits)
Advanced topics in mechanics, such as beams on elastic foundations, curved and composite beams, theory of plates, membrance theory of shells, torsion of non-circular cross-sections, thick-wall cylinders, contact stresses, stress concentrations, energy methods and introduction to stability. Offered in the Fall Semester.
Prerequisite: EGR 361.

## EGR 462 Mechanical Properties of Materials

Mechanical behaviour of materials with an emphasis on defect structures in metals. True stress-strain properties of real materials. Plastic deformation and fracture of metals and non-metals-dislocations, mechanical twinning and slip phenomena. Theories of yield strength and fracture and phenomenological fatigue behaviour. Work harden-

## ENGINEERING

ing theories for metals and strengthening mechanisms in solids. Offered in the Winter Semester. Prerequisite: EGR 361.

## EGR 472 Electronic Properties of Materials

(4 credits)

- Crystal structure of important electronic materials, band theory of solids, transport phenomena, particle statistics, equilibrium distribution of carriers in semiconductors, electrical conductivity; optical and thermal effects in semiconductors, and introduction to the dielectric and magnetic properties of materials. Experimental work may include Hall effect, Haynes-Shockley experiment, optical determination of energy band gap, thermal effects, growth and x-ray characterization of single crystals. Offered in the Winter Semester.
Prerequisites: EGR 172 and consent of the instructor.


## - EGR 473 Solid-State Electronic Devices

(4 credits)
Non-equilibrium carrier densities, transport of excess carrier densities, p-n junctions and junction devices, interface studies, MOS structures, contemporary device theory, fundamentals of micro-electronics and integrated circuits. Experimental work may include fabrication of alloy junction diodes and tunnel diodes, growth and characterization of silicon dioxide layers, solid-state diffusion and diffused junction diodes, measurement of surface-state density, thin semiconducting films. Offered in the Fall Semester.

## EGR 481 Hybrid Computation and Simulation (4 credits)

An introduction to the application of hybrid and iterative analog computing techniques to large scale engineering problems. Sampling, split simulation, nonlinear function generation, time delay generation, parameter optimization, partial differential equations, and error analysis of hybrid computing systems. Offered in the Fall Semester. Prerequisites: EGR 326 or consent of the Instructor.

## EGR 485 Switching Theory

(4 credits)
Boolean algebraic symbolization for nets of binary switched circuits such as counters, timers, and coders for typical computer subsystems. Constructive computation of nonredundant expansions by formal matrix methods are considered and translated into laboratory devices with building block computer elements for computation and on-line data reduction. Introduction to sequential switching decomposition for control and programming of systems. Offered in the Winter Semester.
Prerequisites: EGR 326 or consent of the Instructor.

## UNDERGRADUATE COURSE OFFERINGS IN COMPUTER AND INFORMATION SCIENCE

## CIS 180 Introduction to Computer Programming (4 credits) and Problem Solving

Flow chart techniques for algorithm development and problem solving. Semantics and syntax of the FORTRAN programming language. Applications include elementary statistics, data processing and sorting.
Prerequisite: 2 years of high school mathematics.

## CIS 181 Intermediate Computer Programming with Numerical Applications

Advanced topics in FORTRAN. Elementary numerical methods, including solution of
algebraic equations, matrix and vector algebra, least squares curve fitting, integration, optimization, regression and correlation analysis.
Prerequisites: CIS 180 and MTH 134 or equivalent.

## CIS 182-183 Introduction to Computer Languages and Symbolic Manipulation <br> (4 credits each)

Social and cultural impact of the computer. Applications such as music composition, computer-assisted instruction, computerized art, machine translation, text editing, and information retrieval. Non-numerical symbolic manipulation and computational techniques. Introduction to various computer languages; a detailed study of a major language such as PL/1. CIS 182 is offered in the Fall Semester and may be taken alone. CIS 183 which is offered in the Winter Semester has CIS 182 as a prerequisite.

## CIS 205 Special Topics in Compułer and Information

 Science(4 credits)
Introductory and Intermediate topics in special areas of Computer and Information Science. May be taken more than once.

## CIS 209 Project in Computer and Information Science

(2 or 4 credits)
Independent project work in computer and information science. Topic to be chosen in advance of registration by the student in consultation with an instructor. May be taken more than once.
CIS 290 Assembly and Systems Programming (4 credits)
Computer programming in the primary language of the 360 system: the Assembly language, enabling the composition of special and most efficient routine used in creating new computer languages or applications. Introduction to the structure of compilers and supervisor programs, operating systems, and the macroprograms of input/output device management.
Prerequisites: Eight credits in computer programming including practical knowledge of two computer languages, or concurrence of the Instructor.

## CIS 382 Introduction to Information Structures

(4 credits)
An introduction to information structures and their application in digital computer programming. Topics include linear lists, trees, lists and their various representations using sequential and linked allocation. Emphasis is placed on the application of these general concepts to particular programming problems in data manipulation, discrete simulation, and formal symbolic manipulation.
Prerequisite: CIS 181 or CIS 183.

## CIS 405 Advanced Special Topics in Computer and Information Science

Advanced study in special areas of computer and information science. May be taken more than once.

## CIS 409 Directed Research in Computer and

 Information Science(2, 4, 6, or 8 credits)
Independent work on advanced projects. Topics to be chosen in advance of registration by the student in consultation with an instructor. May be taken more than once.

## ENGINEERING


#### Abstract

Classical methods for solving general algebraic equations, polynomial factoring, Runge-Kutta and predictor-corrector methods for solution of ordinary differential equations and matrix computer methods. Also included are various contemporary methods such as Laplace transform inversion, Latin Squares techniques, partical differential equations and the Fast Fourier Transform. Emphasis is placed on student development of general purpose subroutines for use in engineering applications. Offered in the Winter Semester. Prerequisite: EGR 326 or consent of the Instructor.


CIS 582 Introduction to Computer Programming in
PL/ 1
(4 credits)
This is a first course in computer programming in the PL/1 language. Empahsis is placed on flow charts and the formulation of algorithms. Each student develops and executes approximately 10-12 programs. Applications are general in nature; many deal with simple statistics (average, standard deviation, median) and histograms. Students are encouraged to write programs in any area of their choice. Not open to engineering students.
Prerequisite: A good working knowledge of high school algebra.

## GRADUATE CURRICULUM IN ENGINEERING

For detailed descriptions of graduate courses and admission requirements, see the Graduate Bulletin. The School of Engineering presently offers instruction leading to the degrees of Master of Science and Doctor of Philosophy in Engineering, and to the Professional Development degree. Options may be pursued in control and communication systems; energy systems; computer science; and electromagnetic and optical systems.

## GRADUATE COURSE OFFERINGS

EGR 500 Graduate Seminar (1 credit)
EGR 505 Special Topics in Engineering (4 credits)

EGR 509 Engineering Design Project
( $2,4,6,8,10$, or 12 credits)
EGR 510
Introduction to Continuum Mechanics
(4 credits)
EGR 520
Systems Analysis and Models
(4 credits)
EGR 521
EGR 530
Engineering Optimization
(4 credits)
Engineering Probability and
(4 credits)

EGR 531 Operations Research (4 credits)
EGR 535
EGR 540
Electromagnetic Signals and Waves
(4 credits)

## ENGINEERING

| EGR | 548 | Thermal Energy Transport | (4 credits) |
| :---: | :---: | :---: | :---: |
| EGR | 549 | Fluid Transport | (4 credits) |
| EGR | 550 | Coherent Optics | (4 credits) |
| EGR | 551 | Convective Transport Phenomena | (4 credits) |
| EGR | 552 | Thermal Transport Phenomena | (4 credits) |
| EGR | 555 | Energy and Information Systems | (4 credits) |
| EGR | 561 | Advanced Mechanics of Materials | (4 credits) |
| EGR | 562 | Mechanical Properties of Materials | (4 credits) |
| EGR | 572 | Electronic Properties of Materials | (4 credits) |
| EGR | 573 | Solid-State Electronic Devices | (4 credits) |
| EGR | 580 | Digital Computer Methods in Engineering | (4 credits) |
| EGR | 581 | Hybrid Computation and Simulation | (4 credits) |
| EGR | 585 | Switching Theory | (4 credits) |
| EGR | 586 | Computer Architecture | (4 credits) |
| Professional Development Program |  |  |  |
| EGR | 901 | Engineering Systems Analysis | (4 credits) |
| EGR | 902 | Digital Computer Methods | (4 credits) |
| EGR | 903 | Analog and Hybrid Computer Methods | (4 credits) |
| Computer and Information Science |  |  |  |
| CIS | 582 | Introduction to Computer Programming in PL/1 | (4 credits) |

## SCHOOL OF PERFORMING ARTS

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TERENCE E. KILBURN<br>JERRY L. DAHLMANN<br>THOMAS F. KIRCHNER<br>Associate Dean<br>Theatre Arts<br>Administrative Director Academy of Dramatic Art<br>Administrative Assistant School of Performing Arts

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Provost
Ph.D., University of New Hampshire
JILL P. COURTNEY Lecture in Movement
B.A., Butler University Academy of Dramatic Art

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Honors Diploma and Teaching Certificate, Academy of Music and Dramatic Art, London
W. W. KENT

Associate Professor of Performing Arts General Director, Office of Cultural Affairs B.M.E., University of Kansas; M.M., University of Illinois

TERENCE E. KILBURN
Associate Professor of Dramatic Art, Associate Dean, Theatre Arts, Artistic Director, Meadow Brook Theatre
Professional artist in residence;
actor and director in London and New York
CATHERINE KOZUBEI
Lecturer in Voice Academy of Dramatic Art Teachers Diploma, Central School of Speech and Drama (London); B.A. and M.A., University of Michigan

Lecturer in Technique and Acting Academy of Dramatic Art Diploma, Central School of Speech and Drama, London

| ADA B. MATHER | Special Instructor in Acting |
| :--- | :---: |
| Honors Graduate, | Academy of Dramatic Art |
| Guildhall School of Music and Drama (London) |  |

Visiting Lecturer in Theatre Arts Academy of Dramatic Art
B.A. and M.S., Kansas State Teachers College

Oakland University constitutes a unique cultural and intellectual milieu in which the School of Performing Arts is enabled to concentrate upon the exacting realities of requirement and opportunity in the contemporary world of the professional performing arts. A distinguished faculty consisting of successful performers with a vocation to teach offers unusual advantages to students of exceptional talent and potential. Because some members of the faculty are artists-in-residence, permanent senior teacher-performers, or visiting artists of the Meadow Brook Theatre or the Meadow Brook Music Festival, the training of students is directly linked with the current practices and standards of the finest professional artists. The ambiance of the University's professional performing arts enterprises affords to the corresponding training courses of the School both models and masters.

All courses of the School embody the highest quality of training. Through specialized curricula and schedules, these courses prepare young artists for careers on the theatrical or concert stage. The criterion of achievement is excellence; the criterion of excellence is based on competitive professional performance. Every effort is also made to encourage in students a sense of the artist's responsibilities in society and to develop a concept of the performing arts as vital to the sound cultural health of society. Those who seek a place in the performing arts professions aspire to the combination of artistic sensitivity, awareness, and high achievement in performance capability, which is engendered by such programs. Graduates who demonstrate exceptional abilities and who reach requisite standards of performance may be invited to join the professional performing arts enterprises on the campus of Oakland University.

## PERFORMING ARTS

The faculty of the School of Performing Arts is authorized to develop its own standards for performance, curriculum, admission, and graduation. These standards reflect the realities of competitive professional performance. No formal stipulation is made concerning the qualifications of candidates, but these programs best suit emergent actors and concert artists wishing to concentrate on the development of skills of competence. Moreover, experience shows that the more mature students derive most benefit from intensive training. Provided students have a natural talent, the better their general education before entering professional training, the better are their chances of success. Candidates for admission must distinguish themselves in competitive performance and auditions. It is not expected that students will undertake other academic work while training in the programs of the School of Performing Arts.

The School of Performing Arts, through its relationship with resident performing artists in the Theatre and Festival, has launched two highly successful professional training courses. The Academy of Dramatic Art offers an intensive two-year acting course which normally selects its faculty from professionals associated with the resident company of the Meadow Brook Theatre. A high standard of performance is expected in all aspects of the training, and those who demonstrate the required excellence are eligible for the Academy's Diploma in Dramatic Art.

Summer institutes in the School of Performing Arts offer shortterm workshops and master classes in music and the dance. The unique concepts pioneered and developed by these summer programs, together with the remarkable attainments of this kind of intensive instruction, exemplify Oakland's meritorious contributions to performing arts education.

The scope of the School of Performing Arts continues to broaden. The Academy's distinctive instructional capabilities have been augmented by the organization of courses at the University Course level expressly designed to introduce the theatre to students in the University's general education program. These courses provide a vital link between Oakland's undergraduate curricula and the endeavors of the Academy and of the Theatre. Plans are under way for professional training in music and in the dance, as well as for master classes in the other performing arts. As essential elements of a comprehensive enterprise in the performing arts, television and film are cited for later inclusion. Both present and future programs of professional training will extend and deepen the significant con-

## PERFORMING ARTS

tribution Oakland University seeks to make to the larger community through its dynamic and diversifying center for the performing arts.

The School of Performing Arts endeavors, then, to concentrate on the diversification and refinement of skills of competence; it also assumes a major responsibility for the development of knowledgeable, alert audiences of tomorrow. The confluence of these concerns, to elevate performance capability and to foster artistic sensitivity and awareness, marks the larger purpose of the University in entering this area.

## ACADEMY OF DRAMATIC ART

Jerry L. Dahlmann
Paul A. D. Lee

## MEMBERS OF THE FACULTY

Jill P. Courtney
Alexander N. Gray
Terence E. Kilburn
Paul A. D. Lee
Elisabeth Orion
Ada B. Mather
Fred D. Thompson

Administrative Director
Chairman

The Academy of Dramatic Art provides practical training in acting for students who intend to make their career in the professional theatre. Intensive training in voice and speech, movement, and acting technique are coordinated to assure that the various elements of acting unite in an overall design for developing the actor's craft. The culmination of the training is the opportunity of performing in productions of the Studio Company. Here senior students aspire to refine their professional techniques in the living theatre. Under the artistic leadership of Terence E. Kilburn, who is also Artistic Director of the Theatre, both the disciplines and experience of the resident professional actors and the diversified professional experience of other members of faculty help to shape and sharpen the emergent talents of the actors in the Studio Company.

A distinguished faculty, many of whom have taught at the Royal Academy of Dramatic Art in London and at leading acting schools in North America, is chosen from among professional actors and directors with a vocation to teach. Specialized classes in style and technique complement the normal curriculum and have been given by distinguished artists from leading theatres-such as the

Tyrone Guthrie Theater and Stratford Festival Theatre-and acting schools in North America. Many actors and directors of the Meadow Brook Theatre also give specialized classes in style and technique to complement the basic Academy training program.

Carefully controlled class size permits the close individual attention that students need to cultivate the discipline necessary in the professional theatre. Full professional training requires a minimum period of two years, and candidates must be prepared to remain as full-time students for that period of time. Those who complete 66 credits and who satisfactorily pass each semester's examinations are eligible for the Academy's Diploma of Dramatic Art. Provided the candidate has a natural talent for acting, the minimum educational requirement for entry is a high school diploma or its equivalent. Those who successfully pass competitive entrance auditions are admitted to the Academy. The caliber of training, together with the stimulus of the close link with the resident professional company of the Meadow Brook Theatre, places graduates at an advantage in seeking professional employment. Some graduates have been invited to join the resident company of the Meadow Brook Theatre. Others are now members of leading professional repertory companies across the nation.

All communications concerning the professional training course in acting, requests for information on applications for audition should be directed to the Administrative Director of the Academy of Dramatic Art, 130 Varner Hall, Oakland University, Rochester, Michigan 48063.

## OFFICE OF THE PROVOST

geOrge T. MATTHEWS, Vice Provost
DEPARTMENT OF LEARNING SKILLS
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STANLEY A. CHILDRESSAssistant Professor
Lecturer
B.A., Oakland University
BERNADETTE DICKERSON Director, Career OpportunitiesProgram
Special Instructor B.S., Ohio State University
Assistant Professor
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C.A.S., Harvard Graduate School of Education
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MARY ANN VOSGERCHIAN Instructor
B.A., Wayne State University; M.A., Wayne State University
DAVID R. WEINBERG ..... InstructorB.A., University of Bridgeport; M.A., Columbia University
Staff of the Reading-Writing Center
E. HAROLD BENNETT Special Instructor in ReadingB.S., Appalachian State Teachers College;M.Ed., University of Michigan
ETHEL M. McCULLOUGH Special Instructor in Reading
B.A., Wayne State UniversityThe Department of Learning Skills aids freshmen in the Universityin the acquisition of basic learning tools necessary for the perform-ance of college level academic work. While the emphasis in depart-

## OFFICE OF THE PROVOST

mental courses is on coherent and generally effective writing, all modes of communication, including speech and reading, as well as other study-related activities such as library search skills and research and annotation are encompassed within the curricula of Learning Skills courses.

Students are placed in Learning Skills courses according to the results of pre-registration diagnostic testing and, unless exempted, are encouraged to enroll in a two-course sequence in the form and content of composition. The courses are so designed that a student who completes the sequence should also be able to meet the University's certification of proficiency in writing for graduation.

The Department of Learning Skills also staffs and maintains a Reading and Writing Center for students who need extra help in these specific skills. Students may use the Center on a voluntary basis or upon referral by their instructors for short, non-credit courses, or they may be assigned to the Center by their instructors in Learning Skills for regular credit tutorial courses.

Although courses in Learning Skills do not fulfill specific distribution requirements, they do count toward graduation. Students who are enrolled in courses below the 100 -level should be in close contact with their advisors, however, to insure that they do not exceed the specific limitation of four such courses counting toward the completion of the baccalaureate.

## Course Offerings:

The following courses, with the exception of LS 200, represent the core writing courses for freshman students. Students are assigned to the courses on the basis of diagnostic tests, and they should enroll in the course designated at orientation or registration.

## LS 050 Basic Writing Skills I

(4 credits)
A course, limited in enrollment to twelve students per section, in writing and related study skills (reading; note-taking; library; discussion) intended to prepare students to enter the regular LS writing program. Graded $\mathrm{S} / \mathrm{N}$. Enrollment by assignment. No prerequisite.

## LS 075 Tutorial in Writing Skills

(4 credits)
A one-to-one course in reading, writing, and study skills. Instruction by the faculty of Learning Skills or the Reading-Writing Center. At least six hours per week involvement ( 2 hours conference, 4 hours preparation). May be taken separately or in conjunction with LS 050, LS 100, or LS 101. Graded S/N. Open to all students by referral and permission of staff. Hours arranged. No prerequisite.

## LS 100 Basic Writing Skills II

(4 credits)
A course emphasizing the formal and functional elements in expository writing. Students are introduced to syntactic and rhetorical patterns of the English sentence

## OFFICE OF THE PROVOST

and related patterns of paragraph development. Graded $S / N$. Enrollment by assignment. No prerequisite.

## LS 101 Basic Writing Skills III

(4 credits)
A course emphasizing the development of extended rhetorical structures, with focus on organizational patterns and the principles of logic, coherence, and unity. The course introduces student to techniques of persuasive argument and to fundamental methods of research and annotation. Graded $\mathrm{S} / \mathrm{N}$. Enrollment by assignment. Prerequisite: LS 100 or permission of staff.

## LS 200 Writing in Special Fields

(4 credits)
A course designed to explore the formal, stylistic, and annotative methods related to specific fields and disciplines, e.g., writing and research in education; technical writing. Open to all students. No prerequisite.

## FACULTY OF THE LIBRARY

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Assistant Professor
B.S., Eastern Illinois State College;
M.S.L.S., University of Illinois

ELIZABETH A. TITUS
Instructor
B.A., Oakland University; A.M.L.S., University of Michigan

The faculty of the Library direct, staff and maintain the University libraries and their collections of books and related materials. With the advice of members of the other organized faculties, the Library faculty select materials to be added to the Library's collections and are responsible for the acquisition, preparation, and organization of these materials.

## FACULTY OF THE LIBRARY

Faculty of the Library hold appointments as public services or technical services librarians. The Division of Technical Services is a centralized unit, responsible for acquiring, cataloging, and preparing books, periodicals, microforms, documents, and other kinds of library material. The Division of Public Services, on the other hand, functions in terms of controlled decentralization, offering a variety of direct services to the Library's users.

The faculty in both library divisions are responsive to the educational thrusts of the University and active participants in the academic enterprise. They provide one-to-one instruction for students in the use of the Library and assist them in mastering techniques for the retrieval of information from a variety of bibliographic sources, thus participating with the students in their attempts to search out the many routes to knowledge.

Similarly, the library faculty provide assistance to teachers and scholars in a variety of ways, making every effort to secure for them the library materials needed to support academic programs and faculty research. For example, library faculty prepare subject bibliographies and periodical listings for individual scholars and academic departments.

Since the faculty of the Library are also responsible for research outside of the immediate specificities of bibliographic support of current curricula and faculty research, they are concerned to develop holdings, for example, in interdisciplinary and generalized works of reference and in other bibliographic source materials. Moreover, as a library constitutes a trust for the future, the librarians of Kresge Library search out, evaluate, and sometimes acquire collections of rare or out-of-print books, periodicals, and documents in order to round out the informational resources of the University both in and beyond areas of immediate curricular concern.

Library faculty are involved in continuing research in various areas of academic librarianship. Specialists in the performing arts, in the sciences, in government documents, in general reference, in cataloging and classification, and in the development of library collections are represented on the faculty. The application of computer techniques to the operations of Kresge Library has advanced rapidly over the past few years, and further applications are in progress. As active members of state, regional, and national professional associations, Oakland University's Library faculty are aware of recent developments in academic libraries: they make persistent efforts to provide better services, to develop collections of high quality, and in short, to increase the excellence and usefulness of the University.


## DIVISION OF CONTINUING EDUCATION

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ElEANOR DRIVER Director, Continuum Center
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B.A., Antioch College; M.A., University of Chicago
Oakland University recognizes that education is a never-ending process. Because man never outlives his need for intellectual enlightenment in order to perform effectively his mature roles as worker, parent, and citizen, the University established the Division of Continuing Education. The Division was the first of the University's academic divisions to initiate its programs in September, 1958. The program of the Division, which is a comprehensive and varied

## CONTINUING EDUCATION

offering of courses, conferences, and special events open to adults of the community, is thus an integral part of the University function.

Inherent in the philosophy of Oakland University is the wish to induce in students an insatiable hunger for more and more knowledge. The pursuit of excellence is infinite; even the most dedicated students aspire to excellence they have not yet achieved. Accordingly, the University extends to its graduates and to other members of the community maximum educational opportunity in a conducive environment and offers lively encouragement to all to continue their education throughout their lives.

The Division offers courses, certificate programs, and conferences in professional and cultural subjects at university level in content. The Division differs from other academic units of the University in that its only prerequisite for taking courses is the desire to learn.

A program of evening classes, which includes old and new courses, is offered each term. Currently, 110 courses are offered in liberal arts and sciences, applied arts and sciences, technical subjects, management, and business.

The Division offers ten certificate programs for adults who wish to undertake a sustained program of studies in liberal arts, scien-tific-technical studies, business studies, small business, computing sciences $\mathrm{C}^{2}$ S, management fundamentals, secretarial development, training for medical assistants, retail organization development, real estate. The Division also offers the Graduate Realtors Institute Program.

Conferences on various subjects are held throughout the year. Conference subjects range from the problems of widows and divorcees to real estate appraisal. Local issues such as air pollution control and problems of senior citizens are studied by officials and leaders of the community with the objective of mounting action programs leading to solutions or improvement.

In addition, the Division conducts numerous closed courses designed specifically to meet the needs of business, government, and social agencies.

The Division directs the Continuum Center for Life Planning, which offers a unique and meaningful psychological testing program and specialized counseling service.

Course brochures and informational brochures on programs are available upon request. Call 377-3120, or write the Division of Continuing Education, Oakland University, Rochester, Michigan 48063.

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## For Reference

Not to be taken
from this library


Soccer field South Foundation Hall Sports and Recreation Sunset Terrace

Tennis Courts
Trumbull Terrace Vandenberg Hall Van Wagoner Hall Wilson Hall




[^0]:    *All students who have received or expect to receive their degrees during this academic year participate in this Commencement ceremony.

[^1]:    *For requirements for admissions to the Academy of Dramatic Arts, write to the Academy of Dramatic Arts, Oakland University, Rochester, Michigan 48063.

[^2]:    *Special Note: The Classics Department will not permit students to use only the first semester of an introductory language course (GRK or LTN 114) to satisfy the symbolic systems requirement. Students must either complete GRK or LTN 115 or show equivalent competence by means of a proficiency test.

[^3]:    Studio Art 200 General Compositional Elements, I
    Exploration of various elements of composition including line, color, field, and scale. Emphasis will vary depending on the instructor. Prerequisites: Studio Art 100, Studio Art 101, Art History 262, and approved portfolio. (May be taken for credit in 1972-1973 by students who have passed 8 credits of studio art.)

[^4]:    BIO 404 Prołozoology Laboratory
    (1 credit)
    To accompany BIO 403.

[^5]:    *Students with good high school grades in Latin (or Greek) normally begin in LTN 214 (or GRK). In exceptional cases freshmen may enter LTN 320. Such students may petition, upon successful completion of LTN 320, to receive credit for LTN $214 / 215$. LTN 114 is open only to those with little or no Latin. All freshmen entering Latin courses should consult with the department.

[^6]:    ENG 356 Drama of the English Renaissance
    A survey of English drama (exclusive of Shakespeare) from 1590 to 1640. Prerequisites: ENG 140 or permission of the Instructor.

[^7]:    MTH 512 Mathematics for the Elementary School Teacher II
    Study of set theory, logic, probability theory, statistics, and topics in geometry. Prerequisite: Permission of the Department.

[^8]:    MTH $590 \quad$ Directed Reading and Research (2, 4, 6, or 8 credits) Prerequisite: Permission of the Department.

[^9]:    MUS 322 Music History and Literature Since 1750 (4 credits) History and literature of music from 1750 to the present. Offered each Winter Semester. Designed primarily for music majors.
    Prerequisites: MUS 210 or permission of the Instructor.

[^10]:    SCI 131, 132, 133, 134 Basic Topics in
    (1 credit each) Current Science
    Designed for non-science majors, these four $31 / 2$ week mini-courses deal with relevant areas of 20 th century science. Graded $\mathrm{S} / \mathrm{N}$.

[^11]:    *See this catalog pp. 98-107. Management students electing one of the other options should plan their programs carefully, and they may find their freedom to choose electives limited.

[^12]:    ED 244 Social and Philosophical Issues in Education (4 credits)
    Education is viewed in broad perspective, as both an interpersonal activity and a social institution. An attempt is made to deal with the often implicit assumptions that underlie policy and action decisions. Among questions pursued are those about the social meaning of the schooling process, the open and closed classroom, the role of the teacher, the necessity or relevance of various curricula, the politics of education, historical traditions, contemporary critiques, and the ultimate and immediate aims of education.
    Prerequisites: Sophomore Standing (32 hrs.)

