

1966 CATALOG 1967
ROCHESTER. MICHIGAN

## OAKLAND UNIVERSITY

On February 9, 1963, the Board of Trustees changed the name of Michigan State University Oakland to Oakland University in order to make it easier for this young institution to establish its own independent identity. The action in no way alters the administrative and legal ties with Michigan State University described elsewhere in this catalog. The Board of Trustees of Michigan State University and Oakland University is elected by the citizens of the State of Michigan and has the ultimate authority for the development and operation of both universities. Oakland has been free since its beginning to develop its own philosophy, program, policies, staff and faculty, and is separately accredited by the North Central Association of Colleges and Secondary Schools.

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## OAKLAND

## UNIVERSITY

Catalog<br>1966-1967

## UNIVERSITY CALENDAR

1966-1967
FALL SEMESTER

September 7
September 8
September 9
September 12
November 24
November 28
December 21

January 3
January 4
January 5
March 2
March 6
April 19
April 22
April 28
May 1
May 30
July 4
August 11
August 12

September 6
September 7
September 8
September 11
November 23
November 27
December 20
January 2
January 3
January 4
February 29
March 4
April 17
April 20
April 26
April 29
May 30
July 4
August 9
August 10

Wednesday Convocation Exercises
Thursday Advising and Registration
Friday Advising and Registration
Monday Classes begin
Thursday Thanksgiving recess
Monday Classes resume
Wednesday Last day of classes
WINTER SEMESTER
Tuesday Advising and Registration
Wednesday Advising and Registration
Thursday Classes begin
Thursday Winter recess
Monday Classes resume
Wednesday Last day of classes
Saturday Commencement
SPRING SEMESTER
Friday Advising and Registration
Monday Classes begin
Tuesday Holiday
Tuesday Holiday
Friday Last day of classes
Saturday Commencement
1967-1968 FALL SEMESTER
Wednesday Convocation Exercises
Thursday Advising and Registration
Friday Advising and Registration
Monday
Thursday
Monday
Wednesday Last day of classes
WINTER SEMESTER
Tuesday Advising and Registration
Wednesday Advising and Registration
Thursday Classes begin
Thursday Winter recess
Monday Classes resume
Wednesday Last day of classes
Saturday Commencement
SPRING SEMESTER
Friday
Monday
Thursday
Thursday
Friday
Saturday

Advising and Registration
Classes begin
Holiday
Holiday
Last day of classes
Commencement

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## OAKLAND UNIVERSITY

Oakland University is a state-supported institution that offers degree programs at the bachelor's and master's levels. The undergraduate program leading to the bachelor's degree is centered in the liberal arts and sciences, and is accredited by the North Central Association of Colleges and Secondary Schools. The University also offers professional training at the undergraduate level in teacher education, business administration, and engineering. Regardless of his special field, each undergraduate student at Oakland University takes work in prescribed studies which the University conceives to be the basis of a liberal education. These are called University Courses.

The baccalaureate curriculum emphasizes the fundamental disciplines, and all course work concentrates on principles and concepts which will be of continuing value in a world where techniques and applications change. Teacher education, for example, is a university-wide responsibility. A student preparing for secondary teaching specializes in a liberal arts discipline of his choice, and he receives instruction from the arts and sciences departments.

The University's academic structure includes a College of Arts and Sciences, a School of Education, a School of Engineering, and a School of Performing Arts. In addition, authorization has been given for a School of Business and Economics. The College of Arts and Sciences includes the departments of Art, Biology, Chemistry, Classical Languages and Literatures, Economics, English Language and Literature, History, Mathematics, Modern Languages and Literatures, Music, Philosophy, Physics, Political Science, Psychology, and Sociology and Anthropology. All these departments offer undergraduate major programs, and there are several interdepartmental programs as well. The School of Education contains the department of Teacher Education and faculty drawn from other departments of the University. The Academy of Dramatic Art is an administrative unit of the School of Performing Arts. The Meadow Brook School of Music is operated in the summer session and offers course credit for instruction at the bachelor's and master's levels in vocal and instrumental music. Additional information about graduate programs is contained in the Graduate Bulletin.

Graduate work leading to the master's degree is offered in selected fields of study. The College of Arts and Sciences offers programs leading to the Master of Arts degree in English, mathematics, and psychology, and to the Master of Science degree in chemistry and physics. The School of Education offers the Master of Arts in Teaching degree in elementary education and in reading instruction. The School of Engineering offers the Master of Science degree in systems engineering. The College of Arts and Sciences and the School of Education jointly offer programs leading to the Master of Arts in Teaching degree in English and mathematics.

The University's primary concern lies in creating and maintaining an effective community of learning. At Oakland University there is a variety of extracurricular activity which serves this purpose by balancing or supporting the learning experience. Interest groups, student publications, and cultural activities enhance and give practical application to academic discipline. Social events and an athletic program balance it.

## The Three-Semester Plan

Oakland has been among the first institutions in the country to put its entire academic program in year-round operation. Under what is known as the three-semester (or trimester) plan, students may attend classes for three fifteenweek semesters a year and may therefore graduate in two and two-thirds years instead of the traditional three and threefourths years. There are advantages for both the student and the University in such a plan: the student may gain more than a year in his productive career, and the University may make the most efficient possible use of its facilities to meet the growing educational demands of society.

## Campus and Buildings

Oakland University is located twenty-five miles north of Detroit, midway between Rochester and Pontiac. The campus presently occupies the northwest corner of the estate given to the University by Mr. and Mrs. Alfred G. Wilson, who also donated its first academic buildings, North and South Foundation Halls.

NORTH FOUNDATION HALL contains administrative and faculty offices, lecture halls, music rooms, and the health service.

SOUTH FOUNDATION HALL contains classrooms, music rooms, faculty offices, the Continuing Education and Michigan State University Extension offices.

THE KRESGE LIBRARY, given to the University by the Kresge Foundation, is an air-conditioned structure that presently contains about 113,000 volumes and study space for 1,200 students. It has a capacity of nearly 300,000 volumes and can be expanded to three times its present size.

THE SCIENCE BUILDING, the first structure at Oakland University to be built with state funds provided by the Michigan Legislature, contains modern facilities for biology, chemistry, engineering, mathematics, and physics. Its eighty rooms include two large lecture halls, a mathematics and science reading room, offices, classrooms of multiple sizes, and both teaching and research laboratories.

THE MATILDA R. WILSON HALL, named in honor of the University's founder, includes classrooms, the Placement and Alumni offices, art studios, language laboratories, faculty offices, an art gallery, a 600-seat lecture hall and some administrative offices. It is the second building to be constructed with state funds.

THE OAKLAND CENTER, which was financed by the Oakland County Board of Supervisors and by a federal loan, provides campus dining facilities, private dining and meeting rooms, offices for student activities, offices for student publications, some recreational facilities, and houses the University book store and Scholar Shop. Most of the University cultural and social events take place in the Oakland Center.

THE INTRAMURAL SPORTS AND RECREATION BUILDING, financed from student-fee income, provides facilities for the recreation program at Oakland. Activities in seven different sports can be carried on simultaneously in this building, which contains a swimming pool with a diving area, as well as courts for badminton, handball, squash, tennis, and basketball. Also included are equipment for boxing, wrestling, fencing, gymnastics, weight lifting, and modern dance. Beyond the
building are tennis courts and extensive playing fields, and just to the south lies a ski slope, complete with a tow.

The University maintains six residence halls which house about 35 percent of the student body. Students are encouraged to live in these facilities in order to take full advantage of the University community. A wide variety of accommodations are offered. ANIBAL HOUSE, FITZGERALD HOUSE, and PRYALE HOUSE are L-shaped buildings with 24 double rooms in each wing; the wings are joined by a student lounge and an apartment for resident advisors. HILL HOUSE and VAN WAGONER HALL are both six-story units, each containing roo double rooms, a lobby, lounge, recreation room, and a resident advisor's apartment. VANDENBERG HALL, completed in 1966, is a seven-story, twin tower structure. It contains 28 ; double rooms, kitchen and dining facilities for $\mathrm{r}, 700$ students, student lounges, multiple-use areas, study and seminar rooms, and recreation areas. ANIBAL HOUSE and HILL HOUSE are women's halls; FITZGERALD HOUSE and VAN WAGONER HALL are men's units; and, PRYALE HOUSE and VANDENBERG HALL are coeducational units in which men and women share academic, study, dining, and recreational facilities.

THE CHARLES F. KETTERING MAGNETICS LABORATORY, constructed with a grant from the Kettering Foundation, houses facilities and special equipment for magnetics research done at the University in cooperation with General Motors Research Laboratories.

HOWARD C. BALDWIN MEMORIAL PAVILION, centered in a natural, wooded amphitheater on the Oakland campus, provides the setting for the widely-acclaimed Meadow Brook Music Festival. The pavilion is the first facility of a planned performing arts center. The LULA B. WILSON MEMORIAL CONCERT SHELL is a "pre-tunable" fiberglas acoustical shell especially designed for the pavilion and rated as outstanding in acoustical excellence.

TRUMBULL TERRACE, built into a wooded hillside adjacent to the Baldwin Memorial Pavilion, provides service facilities, food service and quarters for the Scholar Shop for use during the Meadow Brook Music Festival.

THE MOTT CENTER, a converted farmhouse on Walton, houses the Mott Center for Community Affairs, established by a grant from the C. S. Mott Foundation.

## Governance

Oakland University is affiliated with Michigan State University. Both institutions have the same President and Board of Trustees. Oakland has its own Chancellor and University organization responsible for developing its individual role, character, and functions.

## History

In 1957 Mr. and Mrs. Alfred G. Wilson gave their 1,600acre estate in Oakland County to Michigan State University for the creation of a new university. Michigan State University President John A. Hannah then named a committee of fifty community leaders to give form and direction to the new institution. This committee, known as the Michigan State University Oakland Foundation, included automobile company executives, school superintendents, newspaper publishers, judges, housewives, union officials, and civic leaders.

To help with its planning the Foundation gathered together twenty educators and distinguished citizens to give their views about what the character of the new institution ought to be. In the group were 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. The group was virtually unanimous in its recommendations: (I) The university should seek to develop broadly educated students regardless of professional interests; (2) Its curriculum should be relatively simple and should emphasize quality and depth of study; (3) Specific disciplines should center on principles and basic ideas rather than on transitory applications or techniques; (4) The university should build a community of learning in which the faculty could effectively help the students to educate themselves; ( $\varsigma$ ) A university should provide students of this generation with a knowledge of other cultures, particularly those in non-Western areas. These recommendations form the basis for the University curriculum.

In the fall of 1959, with Durward B. Varner as chancellor and a faculty of twenty-five, Michigan State University Oakland opened its doors to a charter class of freshmen. Two important events in Oakland's short history took place in 1963. In February the University changed its name to Oakland University in order that it might establish its own clear and separate identity, though the University's legal and administrative relationship with Michigan State University remained unchanged. In April Oakland University held its first commencement, and the charter class became its first alumni.

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## THE BACCALAUREATE CURRICULUM

## Undergraduate Degrees

Oakland University offers a wide range of baccalaureate majors in the Humanities, the Social Sciences, Mathematics, and the Natural Sciences. These programs also include specialization in Business Administration, Engineering, and Teacher Education. For complete information regarding major programs consult the appropriate sections of this catalog. Oakland University confers two Bachelor's degrees: all graduates are granted the Bachelor of Arts, except those in engineering, who are granted the Bachelor of Science.

## University Course Program

In addition to the major programs of instruction Oakland University requires all students to share in a series of courses designed to provide a broadening, intellectual experience in liberal education. These courses are known as the University Course Program. For complete information regarding the University Course Program page 56 should be consulted. What follows here is a general statement of the University Course requirements:
I. All students are required to take two semester courses of Freshman Exploratories within their first three semesters. These Freshman Exploratories taught in seminar-sized classes, offer an opportunity for the student to explore a wide variety of liberal subjects, and are intended to develop the student's ability to think, to discuss, and to write intelligently and critically. Freshman Exploratories satisfy the University requirements for freshman composition. Freshman Exploratories may be selected from the areas of Literature, Western Institutions, Fine Arts, Social Sciences, non-western Civilizations, Science and Mathematics. No two exploratories may be selected from the same area.
2. Beyond this all students are required to pursue further study in the fields of Literature, History or Philosophy, Art or Music, the Social Sciences, non-western Civilization, Mathematics, and Natural Sciences. This field distribution requirement is normally taken throughout the student's eight semesters of residence.
3. In the senior year all students must participate in a Senior Colloquium taken outside the student's major program. The Senior Colloquium serves to focus attention upon issues of liberal intellectual concern.
4. All students are required to study or otherwise demonstrate a proficiency in a foreign language.

## Professional Programs

For the student planning a career in either dentistry, law or medicine, excellent opportunities are provided for preparation in these fields within the liberal arts curriculum. However, a student who has chosen a particular goal is advised to investigate the requirements of the professional school as early as possible. The requirements of professional schools vary widely, but the flexibility of course offerings at Oakland University makes it possible to satisfy the requirements of most professional schools. Special faculty advisors are available to help plan programs for preprofessional students.

## STUDENT SERVICES

When a student arrives on the Oakland University campus, he finds that many persons are interested in helping him adjust to college life. The various student services and their operations are outlined in the sections following.

## Dean of Students

The primary objective of the Office of the Dean of Students 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 and to experience group living, student government, and cultural, intellectual and social activities. The functions of the office include: general counseling; academic advising; administration of academic standing, withdrawal and readmission policies; student housing; financial aids; student health; physical education; and operation of the Activities Center, Book Store, 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 the Office of the Dean of Students.

## Academic Advising

Every student is assigned to a member of the faculty who serves as his academic adviser. Entering freshmen meet with their advisers at orientation sessions held before the start of classes in September. When the student enters his major area of study, he may be assigned to a new adviser in his major field. This change ordinarily takes place when a student has completed between twelve and sixteen courses. A student may request a change of adviser at any time at the Advising Office, but he must first obtain the assent of the prospective adviser.

All advisers are prepared to help with the selection of courses, the development of career interests, and academic problems. Students are encouraged to meet with their advisers prior to electing courses. All changes in enrollment must be initiated with the adviser.

Entering students who have questions about the advising program should direct them to the Dean of Freshmen. The
assistance of the Freshmen Advising Staff is particularly helpful in acclimating the new student to the requirements of the college experience.

## Alumni Relations

The Alumni Relations office publishes regular issues of the OU Alumni News, conducts an annual alumni reunion at the time of the Meadow Brook Festival, administers the alumni fund drive and maintains records of the alumni.

An Alumni Council composed of Oakland graduates works closely with the Alumni Relations office in establishing alumni policies and procedures.

## 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 wish to improve them further can benefit at least as much. A trained staff and special facilities are available in Rooms 3 II and 314, Wilson Hall and 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. Mrs. Rosen and Miss Craine, members of the English faculty, and their 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 oo9, Aids in Expository Writing, in which S (satisfactory) or U (unsatisfactory) grades are awarded.

Grades awarded in Freshman Exploratories reflect the grades awarded in ENG oog:

## Health Service

The Health Service provides limited treatment and emergency care for full-time students. The service is staffed with a physician and registered nurses.

## Continuum Child Care Center

Students who have pre-school children may leave them for a small fee at the Child Care Center while attending classes or participating in other campus activities. Complete information may be obtained from the Continuum Center. (See page 195).

## Psychological Services

The Office of Psychological Services is designed to help the Oakland student with problems in academic, vocational or personal areas. This office is staffed with clinical psychologists trained to provide a wide range of testing and counseling activities to meet the needs of the individual student. The office is also responsible for all noninstructional testing for entrance purposes and orientation of new students. Service is available by appointment.

## Placement Office

The Placement Office provides assistance to graduating seniors interested in career-oriented employment in industry, business, government service, and some professional fields. It also assists with the placement of candidates for elementary and secondary teaching positions.

The Placement Office provides an occupational guidance and counseling service for all students who wish assistance in making a decision regarding a choice of careers.

A placement library containing descriptive material on career opportunities in most fields and professions is maintained for students' use.

Among other services performed by the Placement Office are alumni placement and all career-oriented summer or part-time employment.

## Veterans

Students eligible to attend the University under the various Public Laws providing veterans' benefits should keep in close contact with the Office of the Registrar. This office provides advice and assistance to eligible veterans and is responsible for reporting to the Veterans Administration.

## STUDENT HOUSING

A brief description of the student housing accommodations at Oakland University is given on page 8.

## General Policy

The University requires that all full-time ( I 2 credits or more), unmarried students under the age of 21 who do not commute from the residence of their parents or legal guardian, must live in University housing. However, seniors under twenty-one years of age and students who will attain the age of twenty-one during the academic year may live in housing off-campus with parental consent. Students must register the address of their actual residence and any change of residence which takes place during the school year.

## Application for Room

New students should request a housing reservation through the Admissions Office. A $\$ 25.00$ Housing Deposit should accompany their 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. Upon a student's acceptance at Oakland, his reservations will be processed by the Housing Office. Notification of hall assignment will be made approximately four weeks before the beginning of each semester. Returning students may renew housing contracts through the Director of Housing.

Should an applicant for student housing find it impossible to honor an advance registration, the Director of Admissions should be notified of a change in plans prior to July r for Fall Semester, December a for Winter Semester, April r for Spring Semester. Any requests for refunds after these dates will not be granted, nor will reservation deposits made after the required dates be subject to refund if a student does not register and take up residence.

## Check-In

Students may occupy their rooms beginning the day preceding registration of the Winter and Spring Semesters, and for Fall Semester, the day of the Freshmen Convocation. Room and board are not provided during official recesses as
listed in the university calendar, or between semesters. If a student is enrolled for the succeeding semester, he may store his personal belongings in the halls between semesters.

The first meal served in the Winter and Spring Semesters is breakfast on the first day of registration. In the Fall Semester, the first meal is breakfast served on the day after the Freshmen Convocation. The last meal of any semester is breakfast following the last day of examinations. Meals are served cafeteria style in the Oakland Center or in Vandenberg Hall.

Rooms are furnished with study desks and lamps, chairs, bookshelves, wastebaskets, bulletin boards, single beds, pillows, dressers, wardrobes, and venetian blinds.

A weekly change of linen (two sheets, one pillow case, two bath towels) is provided. Students may provide for themselves such items as blankets, bedspreads, throw rugs, draperies, etc. Lamps, electric blankets, clocks, radios and record players are allowed subject to safety regulations.

Although general maintenance is provided by the University, students must assume responsibility for keeping their rooms in good order. Coin-operated washers and dryers are available in addition to free ironing facilities.

A head resident and student resident assistants live in each hall to provide leadership and direction in the personal welfare and extracurricular life of each student.

## Cost

The fee for room and board is $\$ 445$ per semester. If a student signs a housing contract at any time during Fall Semester, that contract is binding for both the Fall and Winter Semesters. If the contract is signed during the Winter or Spring Semesters, it is binding for a single semester only. Room and board fees are payable on or before registration or in three allotted payments due at registration and the first of the next two months.

## Off Campus Housing

Listings of off-campus facilities for single men, women, and married students are compiled in the Housing Office, 203 Wison Hall.


## STUDENT LIFE

Since intellectual and personal development take place in the student's cultural, social and recreational activities as well as in his 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 a comprehensive program of sports and recreational activities, although there is no required physical education. Similarly, the pattern of co-curricular experiences and activities in publications, discussion groups, student government, music, dramatics, and cultural offerings are intended to enhance the student's development. Individual initiative is most important, and though help from faculty and staff is always available, students are directly involved in meaningful campus activity.

## Student Government

Student interests are represented through the Student Activities Coordinating Council, the Commuter-Council, the Dormitory Council, and student membership on University committees. The Student Activities Coordinating Council, which is appointed by the Chancellor, coordinates campus student activities, allocates the student activities fee and deals with general campus problems. The Commuter Council is an elected, representative body, whose primary function is to provide a means of involving the commuter students in the decision making process and in University affairs. The Dormitory Council consists of representatives of the various residence halls, and the council seeks to provide a voice for the residents in the administration of the halls and in general University matters.

## Clubs and Organizations

Oakland University offers a diverse program of student activities. The Student Activities Coordinating Council sponsors a film series, lectures, Mrs. Wilson's Birthday Weekend, the Snow Carnival, the Fine Arts Festival, and other major events throughout the year. Special academic, religious, and political interest organizations are available to students. These organizations include the French, Spanish, and Philosophy Clubs; American Chemical and the Engineering Societies,

Newman Student Association; Oakland Christian Fellowship; Christian Science Organization; Wesley Foundation; Deseret Club; Young Democrat; and Young Republican Clubs. Each group plays an important role in campus life and supplements the campus social-cultural program. Student organizations of general interest to the campus community include two service clubs-Circle K and Women's Service Organization-as well as the $\mathrm{Hi}-\mathrm{Fi}$ Club which presents a regular program of recorded music in the Oakland Center's Music Listening Room.

The Dormitory Social Committee sponsors special social and cultural activities primarily for resident students. Informal coffee hours with faculty members, play readings, parties and dances are some of the projects conducted by this committee. In addition, the Dramatic Arts Film Society sponsors a significant series of classic foreign and American motion pictures during the year.

The Association for Women Students is an organization in which all women students have membership. This organization is concerned primarily with women's programming for both resident and commuter students. Big-Little Sister program and Entertaining-in-Private-Homes project are two major events this organization sponsors.

## Dramatics, Dance and Music

The annual Fine Arts Festival is the cultural high point of the year. Through extensive effort from students and faculty, programs of drama, music, dance and art are presented. The best contributions from within the University community and outside it are assembled for a week of superb entertainment and education.

The Meadow Brook Theatre Guild presents one play each semester. Their offerings in the past have included Albee's "The Sand Box," Lorca's "The House of Bernarda Alba," and Strindberg's "The Ghost Sonata." With the help of their professional advisor, the Guild is able to provide students with opportunities to learn acting, directing, production, set design and construction, lighting and costuming. Productions are given in the Little Theatre of the Intramural Building. Classes in modern dance and ballet are offered in the course of the year through the Intramural Program and the Office of Con-
tinuing Education. The University Chorus of 150 voices is the largest campus activity. It performs major choral works both on and off campus with groups such as the Minneapolis, Detroit, Pontiac and Saginaw Symphony Orchestras. Among works recently performed are Handel's "Messiah," Brahm's "Song of Fate," Stravinsky's "Symphony of Psalms," and Vivaldi's "Gloria." The men's Octet is often requested to entertain at dances and parties, and has a wide repertoire from which to oblige. The Hi-Fi Club presents a varied program of recorded music in the beautifully furnished Music Listening Room in the Oakland Center.

## Meadow Brook Festival

The Meadow Brook Music Festival, held in the Baldwin Memorial Pavilion on the campus of the University every summer brings the Detroit Symphony Orchestra to the campus for eight weeks of symphony concerts. Among the guest artists who have appeared with the orchestra are Isaac Stern, Claudio Arrau, Jerome Hines, Maureen Forrester and Van Cliburn. In connection with the music festival such outstanding groups as the Isaac Stern-Eugene Istomin-Leonard Rose Piano Trio and the New York Pro Musica are in residence on the campus for varying periods of time. Choral music conducted by Robert Shaw and programs in contemporary music, featuring especially commissioned works, are also included in the eight-week festival season.

## Oakland Center

The Oakland Center traditionally has served as the "Center" of social, recreational and cultural activity for members of the University community and friends of the University. The facilities in the Oakland Center include the Activities Center, the University Book Center, the Grill, meeting rooms, a lounge, two cafeterias, a faculty-staff dining room, a barber shop, a dry cleaners and an information desk where miscellaneous items such as candy, magazines, and newspapers are available. The Book Center is the campus source for books and general supplies. The Grill, with its own outdoor patio and an informal atmosphere, offers short orders, fountain items and snacks.

The Activities Center serves as a coordinating bureau for extra-curricular programs designed to enrich the cultural-
social life on the campus. The Activities Coordinator works closely with student organizations in the planning and implementation of their programs. The Activities Center also houses offices for official student groups, an exhibit area, and student publications offices as well as the master calendar of campuswide social and cultural events. In addition, a ticket desk for a variety of events (theater, sports, music, etc.) in the greater Detroit metropolitan area is an integral part of the Activities Center. Closely tied to the Activities Center is the student operated Pickwick Club which presently operates the billiards and ping pong facilities in the Oakland Center.

## Art Exhibitions; The University Art Gallery

The Department of Art is the principal sponsor at Oakland University of exhibitions of painting, sculpture and graphics. It presents several changing shows annually in the University Art Gallery in Matilda Wilson Hall, which also houses the beginnings of a significant permanent and extended loan collection. The latter has been generously provided by private collectors in New York, the Detroit-Birmingham area, and elsewhere. The Detroit Institute of Arts often cooperates with the University Art Gallery in the presentation of special material. Both the changing exhibitions and the permanent collection stress recent twentieth century art and the sculpture of primitive peoples (Africa, Oceania and the pre-Columbian Americas).

Internationally known art historians and artists appear at Oakland. Michigan's first professionally directed art "happening" was arranged on this campus by the Department of Art. The first honorary doctoral degree awarded by Oakland University to a practicing distinguished scholar was conferred upon an art historian.

Each year the University Art Gallery presents an exhibition of the best creative work by students enrolled in studio art classes, usually in cooperation with the Fine Arts Festival.

## The Dramatic Arts Film Series

A student group arranges a year-long schedule of foreign and American film classics. Tickets are available by semester or by performance. Films such as "The Seventh Seal," "La Strada," and "Birth of a Nation" are shown.

## Student Publications

Experiences in creative writing, editing and publishing are provided through three student publications: the Oakland University Observer, Contuse and the Ascendent. The Oakland Observer is published once each week in newspaper form during the regular academic year while Contuse and the Ascendent are published once each year. Contuse contains selected student literary works and seeks to encourage literary merit among the Oakland student body, while the Ascendent serves as the University yearbook. These publications are written, edited, published by students with general guidance being provided by appointed faculty and staff advisors.

## The Physical Education Program

Oakland's voluntary physical education program encompasses instruction in sports activities, spontaneous recreation activities, planned recreation activities, competitive intramural sports, competitive extramural sports, sports clubs and competitive intercollegiate sports.

The program is designed as a service program for all students, faculty and staff. It is directed to the participating individual, rather than the spectator.

Instruction by the professional and volunteer staff is offered in approximately 20 sports at times most convenient to those desiring the instruction.

The facilities are available for spontaneous informal practice and play. For activities such as boating, bowling, camping, canoeing, fishing and horseback riding arrangements can be made for equipment and transportation for participating off campus.

The competitive intramural sports program for men and women students, faculty and staff includes 8 to if different individual and team sports each term. Participants, individual or team, may represent dormitory wings or floors, campus clubs, ride clubs or other campus organizations or they may participate as unattached individuals or teams.

Students who participate in the intramural sports program are extended opportunity to compete with students from other colleges and universities four or five Saturdays
each term. Oakland is usually represented by 3 or 4 teams in basketball, softball, tennis and volleyball and by 6 to 12 individual students in archery, badminton, golf, tennis, table tennis, and other individual activities.

Men and women with mutual interest in a certain sport or recreational activity are encouraged to organize and develop clubs for instruction, practice and competition both on campus and off campus.

Students with interest in intercollegiate sports competition in certain individual and team sports are encouraged to train for and to participate in recognized intercollegiate meets and games as individuals or as team members representing Oakland University. There is competition in cross country, golf and tennis in the fall; basketball, fencing, and swimming during the winter; and golf, tennis and track events during the spring and summer.

Equipment and supplies for a great variety of sports activities are available for checkout in the Sports and Recreation Building upon presentation of the student identification card.

## ADMISSIONS, REGISTRATION, AND GRADUATION

## Requirements for Admission

The University considers the best preparation for its work a program of studies at the high school level which consists chiefly of those fields that are fundamental to the liberal arts: English, mathematics*, foreign languages, social studies, and science. Students admitted to Oakland are chosen on a selective basis, with consideration given to the candidate's high school academic achievement, recommendations, aptitude test scores, leadership qualities, interests, and educational goals.

In doubtful cases, a candidate may be asked to the campus to take a qualifying examination, the results of which will become one of the criteria for determining admissibility.

Out-of-state students must present with their application for admission either Scholastic Aptitude Test results of the College Entrance Examination Board or results from the American College Testing Program.

Under the Michigan Association of Schools and Colleges Program, Oakland accepts students from among the more able graduates of accredited high schools without regard to the pattern of subject matter completed, provided they are recommended by their high school principals.
*Students planning majors in the sciences, mathenatics, engineering or business
administration nust present at least three years of mathematics (algebra, $11 / 2$ units;
geometry, 1 unit; and trigonometry, $1 / 2$ unit).

## Applieation for Admission

Application forms, available from high school counselors or the University director of admissions, should be completed and submitted as early as possible in the senior year, and in any case before the end of the school year.

## 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 automatically gives credit for grades of 5 or 4 in the Advanced Placement exam-
inations. 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.

## Transfer Admissions with Advanced Standing

A student is eligible to transfer to Oakland from another college only if he is entitled to an honorable dismissal without social or academic probation. He must complete an application form, have his Dean of Students complete the Personal Qualification form, and request the Registrar of his institution to send an official transcript of his record. Each application will be considered on its merits.

Credit is granted for individual courses passed with a grade of "C" or better at accredited institutions, provided that these courses fit into the Oakland curriculum.

## Readmissions

A student whose registration at Oakland is interrupted for one or more semesters, except the Spring Semester, must be readmitted. Application should be made to the Dean of Students at least one month before reentry.

## Foreign Students

A student from abroad should write to the Director of Admissions, Oakland University, Rochester, Michigan, at least a year before the time he hopes to be admitted. He will be sent instructions and an application, which he should complete and return at once. When the application is approved, he will receive a certificate of permission to enter the University. These forms will help the student in making application for his passport and a student visa.

## Orientation

A summer orientation for freshmen and transfer students is held on several convenient dates during June, July, and August. At this time placement testing will be administered, general information about the University will be disseminated, academic advising and registration will take place. All new students, except those from out of state 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 attending classes in the fall.

## Course and Credit System

The unit of credit is the semester hour. Courses carry four semester hours of credit unless otherwise specified. Normally the maximum student registration is 16 to 18 credits a semester. With his adviser's permission, however, a student who has completed i2 or more credits at Oakland may register for as many as 21 credits provided that his 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.

## Change of Courses

To drop a course, a student must have the permission of both the instructor and his academic adviser. Denial of permission is to be subject to review by the Committee on Instruction.

Courses may be dropped at any time up to the end of the ninth week of the semester. The only grade recorded by the Registrar for a course dropped during this period is an "N" grade. Courses approved for dropping before the close of the second week of classes will not be entered on the: student's record.

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

## Repeating Courses

With permission of his adviser, a student may be allowed to repeat a course. The last grade earned in a course will be used to compute the student's grade point average.

## Grades and Grade Point System

Oakland has a numerical grading system ranging in tenths from 0.0 to 4.3. This system is not related to numerical or letter equivalents. Grades from 2.0 to 4.3 are in the range necessary for graduation, but grades from 0.0 to 1.9 are in the penalty range. The numbers $0.1,0.2,0.3$ and 0.4 are not used.

Oakland University grades may be described as follows:
$4 \cdot 3$ highest grade
4.0 excellent
3.0 good
2.0 satisfactory
r.o inadequate but receives credit
0. 5 lowest grade receiving credit
0.0 failure; no credit

The minimum cumulative grade point average for graduation is a 2.0.

## I-Incomplete

The I (Incomplete) is a temporary grade that may be given only after the thirteenth week in a course where 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 0.0 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 given only during the first nine weeks of the semester when a student drops a course or officially withdraws from school.

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

## Academic Record

A report of the student's grades earned 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 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.

## Withdrawal

A student withdrawing from the University must do so through the Office of the Dean of Students. The withdrawal must be presented to the Registrar for recording and authorization for any possible refund. Grades and refunds are determined according to the effective date of the withdrawal. Students who fail to follow this procedure must obtain permission from the Dean of Students to register again.

Upon official voluntary withdrawal from the University grades will be assigned as follows:
a. before the end of the first two weeks of classes no grades will be recorded.
b. from the third week through the ninth, a grade of N will be given.
c. after the ninth week, a grade of N or 0.0 will be assigned by the instructor in consultation with the Dean of Students.

## Requirements For Bachelor's Degree

A student must meet the following requirements in order to graduate:
I. Have completed at least 124 credits.
2. Have completed 32 credits at Oakland University. At least 16 of these credits must be in his elected major. A student must be registered at Oakland University for at least 8 credits during the semester in which the degree is to be conferred.

This is the residence requirement; exception may be obtained by successful petition to the Committee on Instruction.
3. Have a cumulative grade point average of at least 2.0.
4. Have attained a minimal breadth in his program by:
a. Passing at least 8 credits as genuinely free electives, and
b. Passing 36 or more additional credits as specified to satisfy University Course Program. These requirements shall include two Freshman Exploratories, and the field distribution course requirements appropriate to the chosen major, and a Senior Colloquium.
5. Have fulfilled all requirements for an elected major and have at least a 2.0 average in the courses required for a major.
6. Have fulfilled the requirements for Michigan Public Law 229, by taking either the University Course in Political Science or any combination of two courses from the University Course Social Science sequence or the American History sequence.
7. Have demonstrated facility in a Foreign Language as required by the elected major.
[All students in Liberal Arts majors, with the exception of Biology, Chemistry, and Physics, shall be required to demonstrate proficiency in a Foreign Language through the fourth semester level by placing beyond second year language at the college level in a proficiency examination administered upon admission, or, if need be, by successfully completing a four-semester course in language at the college level. All students in preprofessional programs (Teacher Education both elementary and secondary; Business Administration; Engineering) and liberal arts majors in Biology, Chemistry, and Physics, shall be required to demonstrate reading knowledge of a foreign language by placing beyond first year language at the college level in a proficiency examination administered upon admission, or, if need be by successfully completing a second semester course in language at the college level.]

## TUITION AND FEES

## Tuition Charges

Tuition is assessed each semester on the basis of the credit value of the courses carried, as follows:

|  | Michigan Residents | Non-Residents |
| :---: | :---: | :---: |
| I-3 Credits | \$ 96 | \$ 179 |
| 4-6 Credits | 88 | 260 |
| 7-9 Credits | - 125 | 353 |
| ro+ Credits | - 189 | 522 |
| (All fees are | registr |  |

## Other Fees

Processing Fee
A fee of $\$ 10$ must accompany all applications for admission. This is a processing fee and is not refundable.

Late Credential Fee
A fee of $\$ 5$ is charged students who fail to file credentials before $s$ p.m., seven days before the first day of registration.

## Late Registration Fee

Students registering or paying fees after the regular registration date are required to pay an additional, nonrefundable fee of $\$ 15$ for the first day, plus $\$ 5$ a day until a maximum of $\$ 25$ is reached.
Repeat Course Fee
An additional fee of $\$ \$$ per credit is charged for all courses repeated.

## Tuition Deposit

Within three weeks after notification of admission, a deposit of $\$ 50$ must be paid, part of which will be applied to orientation expenses. The remainder will be applied to tuition. One half of this deposit is refundable if a student notifies the

University before April I that he does not intend to enroll. No refunds will be made after that date.

## Room Deposit

Requests for room reservations must be accompanied by a $\$ 25$ deposit which is refundable up to July r, if the University is notified. This deposit is held on account as long as a student resides in University Housing. It does not apply toward the Housing fee. Deposits made after July I are not refundable.

## Refunds of Fees

A student who withdraws voluntarily before the eighth week of the semester will receive a refund of one-half of his course fees. The student must present to the Registrar's Office an official withdrawal slip, his fee receipt, and his identification card. No refund will be given after this time. Housing fees are refunded on a pro-rated basis.

A student dropping a course (before the eighth week) which puts him in a lower fee category will receive a refund of half the difference between the two fee groups. No refund will be given after this time.

## Out-of-State Tuition Rules

r. A resident of Michigan (except for aliens) is defined as a person who has resided in this state six months immediately preceding his 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 his 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 residence 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 is moderate. For a commuter student $\$ 334$ per semester may cover all costs: tuition, books, lunches, and transportation.

The basic costs for a Michigan student living on campus would be about $\$ 679$ per semester for tuition, books, room, and board. For an out-of-state student they would be about \$1,012 per semester.

Since under the three-semester plan a student may go to school three semesters a year instead of two, the eight terms can be telescoped into two and two-thirds years. Thus, the costs are more in each of the first two calendar years, but the total remains the same.

A table of estimated basic expenses for a semester, which does not include such things as laundry, transportation to and from home for students living on campus, clothing or incidental spending money, follows:

|  | Commuter |  |
| :---: | :---: | :---: | | Michigan |
| :---: |
| Tuition |$\quad$ Out-of-State

Books and Supplies _-_ 45 ..... 45 ..... 45
Board and Room ..... 44)* ..... $445^{*}$
Lunches and Local

Transportation ---- 100
$\overline{\$ 334} \quad \overline{\$ 679}$
*This charge includes a $\$ 2.00$ dormitory government charge.


## FINANCIAL AIDS

Oakland University seeks to provide financial aid to worthy students who do not have sufficient funds to finance their education. This aid is offered in the form of scholarship grants, National Defense Education loans, and, in some cases, campus jobs.

The University is a member of the College Scholarship Service and requires the parents of all students seeking assistance to file a confidential financial statement with that organization. This statement is necessary in order that a need factor may be determined, and the form for it may be obtained from the applicant's high school, from the University, or by writing to the College Scholarship Service, Box 176, Princeton, New Jersey.

Because all awards are based on academic achievement and financial need, the stipends vary. Under this policy it is possible for the University to make awards ranging from an amount equal to full tuition, room and board, to a small honorary stipend. Also, this policy allows the applicant to be considered for all awards for which he is eligible. Applicants need not apply for a specific scholarsbip.

All financial aid awards at Oakland University will be subject to renewal each semester of attendance. A student who has maintained a cumulative grade point average of 2.5 or higher will have his aid automatically renewed through eight (8) semesters of work as long as the need for financial assistance continues. It is expected that all students receiving financial aid will carry a full load of courses, defined as 4 courses per semester. Rare exceptions to this requirement will be handled by petition to the appropriate committee.

The greater part of the funds available for Oakland's aid program have been raised by the Oakland University Scholarship Committee, a dedicated group of women of the greater Detroit area. Scores of individuals, groups, and companies have provided funds for other awards in varying amounts to help deserving students. Donors contributing $\$ 200$ or more up to the date of printing are listed at the end of this section. Unless otherwise noted, all scholarships are awarded by a University
scholarship committee and may be renewed each year throughout the recipient's college career if he maintains a satisfactory record.

## For Freshmen:

Nearly 300 awards up to the full amount of tuition are made each year. The amount of the award is based on need. In addition, Oakland has a competitive scholarship 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 admitted to Oakland to participate in the competition. Winners for six premium scholarships are selected by a scholarship committee. Included in this group of scholarships are three General Motors scholarships with stipends up to $\$ 2000$ per year for four years.

## For Junior College and Transfer Students:

Students who apply as transfer students from accredited public junior colleges in Michigan will be considered for all awards normally made available to freshmen. The same procedure of filing the parents' confidential statement with the College Scholarship Service should be followed. Transfer students from other four-year institutions are eligible for loan opportunities and campus work. Such students, however, do not qualify for scholarship grants until they have completed at least one year of academic work at Oakland University.

## Special and Endowed Scholarships

## Alvin M. Bentley Foundation Scholarship:

A one year award made to a Michigan high school graduate. The amount of the scholarship is up to $\$ 750$ for a resident student, or up to $\$ 500$ for a commuting student.
Consumers Power Scholarship:
Annual one year scholarship of $\$ 300$ to a freshman student coming from an area served by Consumers Power Company.

## The Harlow H. Curtice Memorial Scholarship:

An award established to honor the late Harlow H. Curtice, President of General Motors Corporation.

Detroit Edison Scholarship:
Annual one year scholarship of $\$ 400$ to a freshman student coming from an area served by Detroit Edison Company.

## General Motors Scholarship:

Three awards are made each year to entering students under the nationwide scholarship program of the General Motors Corporation. Each award is worth from \$200 to $\$ 2000$ a year, depending on need.

The Mrs. C. Allen Harlan Scholarship:
An annual award to an entering freshman.
E. F. Jobnson Memorial Scholarships:

Three $\$ 500$ scholarships awarded annually to students in business administration. These scholarships have been established by the Mary Louise Johnson Foundation to honor the contribution made by Mr. Johnson to the business climate of our community.

Mr. and Mrs. Roger M. Kyes Scholarship in English:
One award worth approximately $\$ 400$ a year is given annually to an upperclass student majoring in English.

Mildred Byars Matthews Memorial Scholarsbip in Art History: This fund has been established in honor of a former member of the faculty of Oakland University to create an endowed scholarship for an outstanding art history major.

Margaret E. Oakley Memorial Scholarship:
Established in memory of the late Mrs. Addison (Margaret E.) Oakley, former chairman of the Oakland University Scholarship Committee and loyal friend of the University. This award covers tuition costs for three semesters.

## Pontiac Central High School Scholarships:

Established by Pontiac Central students, this award of approximately $\$ 250$ a year is made annually on the basis of competitive examination. Both entering and enrolled students who are graduates of that high school are eligible.

## Alfred G. Wilson Honor Scholarship:

Established in memory of the late Alfred G. Wilson, this award is worth up to $\$ 1,500$ and will be presented annually to an incoming freshman who may retain the scholarship for four years if his scholastic record is maintained and financial need exists.

Matilda R. Wilson Honor Scholarsbip:
Established by the Friends of Oakland University, this award is worth up to $\$ 1,500$. The award is made each year to an incoming freshman who may retain the scholarship for four years if his scholastic record is maintained and financial need exists.
Village Woman's Club of Birmingham Scholarship:
An award made to a woman student from Oakland County.

## A. Glen Wilson Endownent Fund:

An endowment fund established with the earnings to benefit the general scholarship fund.
The following is a list of donors who have contributed a gift of $\$ 200$ or more during the period from 1962 to the time of printing of this catalog.

| Abernethy Foundation | Campbell-Ewald Company |
| :--- | :--- |
| Adams, Charles F. | Carey, Mr. and Mrs. Walter |
| Ahrens, Don E. | Chamberlain, Mrs. Jesse |
| Alpha Delta Kappa-Zeta Chapter | Colbert, Mr. and Mrs. L. L. |
| American BPW Association, | Cole, Edward N. |
| Tipacon Chapter | Community National Bank |
| American Society of Tool \& Mfg. | Consumer's Power Company |
| Armstrong, Mr. and Mrs. R. A. | Critchfield, R. M. |
| Awrey, Wilbur S. | Curry, Mrs. D. H. |
| Baldwin Rubber Company | Dawson, Hanley Chevrolet |
| Barker, Dr. and Mrs. H. | Delta Kappa Gamma, |
| Beaudette Scholarship | Alpha Gamma Chapter |
| Bentley, Alvin M. Foundation | Detroit Bank \& Trust Company |
| Scholarship | Detroit Edison Company |
| Boogehold, Alfred L.. | Duffy, Irving A. |
| Boice Bilders Supply | Dykstra, Joohn |
| Booth, Warren S. | Dykstra, John-Foundation |
| Brooks, Glenn R. | Eppert, Ray R. |
| Bugas, John-Fund | Eurpac Service, Inc. |
| Business and Professional | Exchange Club of Brooklands |
| Women's Club, Royal Oak | Fisher, Max M. |

Fitzgerald, Harold A.
Ford, Russell G.
Fruehauf, Roy-Foundation
Frost, Jerrold
General Motors Corporation
General Motors Girls Club
Gordon, John F.
Gossett, Mr. and Mrs. William
Graham, Mrs. Graham J.
Greater Detroit Chevrolet Dealers
Hamburger, Sam and L.
Foundation
Haupt, Jack and Mrs.
Hills Theater, John D. Taylor
Howlett, Harold E. Memorial
(Community National Bank)
Hunt, O. E.
Johnson, Mary Louise-
Foundation
Junior Chamber of Commerce, Pontiac
Junior League, Birmingham
Klotzberger, Edward C.
Knudsen, S. E.
Macomb Town Hall
Mahon, R. C.-Foundation
Michigan Bell Telephone Company
Michigan Tractor \& Machinery
National Bank of Detroit
National Foundation of Rochester Wyman Furniture Company
National Twist Drill \& Tool Company
Nichols Company, The
Norvell, Mr. and Mrs. Ralph T.
Oakland County Scholarship Committee
Ott, Wilbur
Oxford Savings Bank

Wilson, Dr. Elizabeth M.
O'Dell, Hewlett \& Luckenbach, Associates
Pontiac-Oakland Town Hall, Inc.
Pontiac State Bank
Putnam Tool Company
Republicans of Oakland County
Reuther, Mr. and Mrs. WalterFoundation
Reynolds Metals Company
Richardson Foundation
Rinehart, T. M. Jr.
Rinshed-Mason Company
Roche, James M.
Rochester Junior Women's Club
Rochester Paper Company
Rotary Club of Pontiac
Rotary Club of Southfield
Sanders, Fred W.
Scott, Dr. Marion L.
Seidman, William and SarahFoundation
Shenefield, John W. and Madeline
Sterling and Clark Agency, Inc.
Teacher Education AssociationOakland University
Trumbull, Mr. and Mrs. George T.
Van Dusen, Mr. and Mrs. W. D.
Wasserberger, George A.
Wrayne Oakland Bank

Zeder, James C.
Zonta Club of Pontiac
Women's National Farm and Garden Assoc. (Lake Angelus)
Women's National Farm and Garden Assoc. (Pontiac)
W'omen's National Farm and Garden Assoc. (Rochester)

## Loans

Four loan funds are available, one for long-term and three for short-term assistance. All are available to students in good standing on the basis of need.

## W. Everett Grinnell Loan Fund:

This fund provides for short-term loans to any Oakland student.

## National Defense Education Act funds:

These monies provide for loans up to $\$ 1,500$ per year. The three percent interest rate and the ten-year repayment period begin a year after the student leaves college (or graduate school). No interest accrues nor are payments required during military service. In the event of the borrower's death or total disability, the obligation is cancelled. Up to one-half of the obligation may be forgiven-at the rate of ten percent per year-for teaching in a public school.

## The Pontiac Kiwanis Club Loan Funds

This provides for short-term loans to students or staff. Interest is one percent per year. These loans are available to sophomores and upperclassmen.
The Joan Selby Fund:
This fund is intended primarily to provide adult students with short-term loans, also at one percent, but its resources are also available to other students.

## Part-time Employment

Although demand almost always exceeds supply, oncampus jobs of varying kinds and durations have been provided for over 200 students at some time during each school year. Many of these have been for special occasions or tasks. Students who wish employment should register with the Office of the Dean of Students which is the clearing house for on- and offcampus jobs. No student is permitted to work more than twenty hours a week on a campus job, and all are discouraged from working more than fifteen.

A student who works two hours a day or ten hours a week may earn up to $\$ 190$ per semester.

## COURSES OF INSTRUCTION

## Regulations Governing Courses

I. All courses are assigned four semester hours unless otherwise specified.
2. A course sequence joined by a hyphen (e.g., GRK 4r4415) 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.
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 which are taken throughout all eight semesters courses numbered roo-199 are normally taken by students in the first and second semesters, 200-299 courses in the third and fourth semesters, 300-399 in the fifth and sixth semesters, and 400-499 in the seventh and eighth semesters. Courses numbered 500-599 are assigned to introductory graduate level courses, but most are also available to undergraduates, numbers 600-699 are generally assigned to courses open to graduates only.
5. The Registrar reserves the right to cancel any course in which there is insufficient registration.

## Major Standing and Requirements for Majors

A student must have completed 56 credits before he may formally be admitted to major standing. It is the student's responsibility to apply to the appropriate department for major standing before the end of the semester in which he completes $\rho 6$ credits. A student may be admitted to major standing if he has passed all courses prerequisite to the major with at least a 2.0 average.

Requirements for a major and for a teaching major and minor in each discipline precede the course listings for each department. Many sample programs are outlined in these sections, as is the University Course program for a given major.

## The University Course Program

The University Course Program consists of Freshman Exploratories, Distribution Requirements, and Senior Colloquia. Normally the University Course Program is spaced throughout a student's entire undergraduate career.
I. Freshman Exploratories $\qquad$
All students must take within their first three semesters two exploratories chosen from the following groups (no two may be chosen from the same group): Literature, Western Institutions, Fine Arts, Man and Contemporary Society, Non-Western Civilization and Natural Science. (There will be no exploratories in Natural Science offered in 1966-67).
II. Distribution Requirements
A. Literature $\qquad$
(UC or 8 , or ENG I4I, or any course under modern foreign languages numbered 271 or higher and especially those numbered 285.)
B. Western Institutions
 (UC 036, or ED 244, or HST 241, or HST 242, or PS 272)
C. Fine Arts $\qquad$
(UC 047 or UC 049. Majors in Elementary Education should take ART I47 or MUS 149 instead of UC 047 and 049.)
D. Social Sciences (UC os2, UC os4, UC os6, UC 058, PS 131, PSY 146)
E. Non-Western Civilization $\qquad$ 4 credits (UC 062 or UC 066 - neither course is open to freshmen)
F. Science and Mathematics 12 credits (UC o8s or UC o86-o87 or courses required by a specific major. Students who elect to take only 8 hours in Science and Mathematics must take 8 hours in Fine Arts in two different fields.)

## III. SENIOR COLLOQUIA 4 credits

These colloquia, designed to create an opportunity for senior students to work outside their major fields in one of their last two semesters of residence, will be available to students who enter on or after September, 1966.

Focusing upon important cross-disciplinary issues, they will be conducted by faculty drawn from the humanities and from the social and physical sciences.

Not offered in 1966-1967.

## Charter College

Charter College offers new students enrolling at Oakland University an alternate means of meeting their university course requirements in a small college atmosphere conducive to the development of relatively close personal contacts among students, and between students and faculty. Students who request assignment to Charter College prior to their first registration at Oakland will generally be admitted on a first-come, first-serve basis, without regard to scholastic aptitude, subject to certain limitations designed to keep Charter College as representative as possible of the Oakland student population as a whole.

Charter College students need meet none of the University Course requirements noted in this catalogue, except that they are subject to the same language proficiency requirements as other Oakland students in their major or curriculum. They will instead take a total of 40 credit hours (normally ten courses) in liberal arts courses open only to Charter College students, including eight credit hours in each of their first two trimesters. Resident Charter College students will also be expected to live in a particular dormitory or section(s) of a dormitory set aside for them.

Charter College sections at any given class level (freshman, sophomore, etc.) are normally considered interchangeable, despite wide differences in subject matter. Each student's academic adviser (his instructor in his first trimester) is responsible for seeing to it that his Charter College experience is appropriately broad-generally including work in the humanities and sciences and social sciences. The only grades given in Charter

College courses are S (Satisfactory) and U (Unsatisfactory). A full evaluation of each student's participation in the college will be prepared by the Charter College faculty and made a part of his transcript at the time he graduates from or leaves the college.

CC 1,3 (Charter College Lectures) A series of lectures, concerts and other presentations arranged by the Charter College faculty. In conjunction with these lectures, students are expected to read a series of books nominated by the Charter faculty as valuable for college freshmen.

C 2,4 (Charter College Seminar) Each Charter faculty member is asked to teach whatever kind of course within his fields of competence he feels most enthusiastic about teaching. In the Charter College Seminars, each student will be expected to do a good deal of writing on assigned subjects. Detailed descriptions of the seminars are prepared each semester and made available in the Charter College office.

CC 1,3 and CC 2,4 are intended for freshmen and must be taken concurrently - except by special permission of the Charter faculty.

CC s-A Charter College course in an area selected by the instructor, open to sophomores and juniors. The student will be expected to do less writing than in CC 2,4. (May be taken for credit up to four times.)

Prerequisite: CC $1,2,3,84$ or permission of the faculty chairman.

## UNIVERSITY COURSE DESCRIPTIONS

## FRESHMAN EXPLORATORIES

## UC O1A Literature and Language

Study of a variety of materials to define the unique interpretation of human experience which literature represents, how literature relates to other endeavors, and the various forms of and approaches to literature and the use of language.

## UC O1B Western Institutions

Studies from a variety of viewpoints, of the nature and development of significant social institutions of the Western
world, both ancient and modern, with attention to their relevance for the present.

## UC 01C Fine Arts

Studies in art or music designed to enhance the student's disciplined understanding and engagement in the experience of visual and auditory modes of art. Staff is drawn primarily from the Departments of Art and Music.

## UC OID Man and Contemporary Society

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

## UC OIE Non-Western Civilizations

Inter-disciplinary studies of the development and of the present character of the civilizations of China and India.

## UC 01F Science and Mathematics

Studies in selected areas of mathematics and the natural sciences. These exploratories taught by faculty drawn primarily from the fields of biology, chemistry, engineering, mathematics and physics are designed for students with no necessary previous preparation in mathematics or the natural sciences. Not offered in 1966-67.

## LITERATURE <br> UC 018 Western Literature

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

## WESTERN INSTITUTIONS

## UC 036 Western Institutions

Lectures in 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 inquiry into complex historical and philosophical situations.

## FINE ARTS

## 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 an historical sequence of related forms. Major styles and periods and the fundamentals of visual analysis 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 Music Department before registering for this course.

## SOCIAL SCIENCES

## UC 052 Introduction to American Politics

A study of the process of decision-making in the American national government, and 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 business administration 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. Areas emphasized are social structure, cultural processes and patterns, socialization and personality development, social stratification, collective behavior, and population, as well as the major institutional areas. Note: Prospective sociology majors should take this course in the first or second semester.

## AREA STUDIES

Some University Courses concentrate on the fundamental principles, historical development, and major achievements of Western and American civilization. Others emphasize the processes by which the modern world functions. Area Studies courses complement these by turning the student's attention to major world civilizations, Chinese and Indian, that differ substantially from Western civilization and are making their own unique contributions to the modern world.

To satisfy the Non-Western civilization requirement, students normally will take UC 062 or UC 066.

## UC 062 Introduction to China

An exploration of the traditional civilization and modern development of China. Aspects dealt with include history, philosophy and religion, literature and the arts, government, and social organization. Prerequisites: Two Freshman Exploratories.

## UC 063 Advanced Chinese Studies

Intensive study of aspects of Chinese civilization and history on a tutorial or seminar basis.
Prerequisites: UC 062 and permission of the instructor.

## UC 066 Introduction to India

An exploration of the traditional civilization and modern development of the Indian sub-continent. Aspects dealt with
include history, philosophy and religion, literature and the arts, government, and social organization.
Prerequisites: Two Freshman Exploratories.

## UC 067 Advanced Indian Studies

Intensive study of aspects of the civilization and history of the Indian sub-continent on a tutorial or seminar basis. Prerequisites: UC 066 and permission of the instructor.

## SCIENCE AND MATHEMATICS

The science and mathematics requirement may be fulfilled by any of the following three: UC 085, UC 086, UC 087. This requirement also may be met by two departmental courses in science or one course in science and one in mathematics.

## UC 085 Mathematics

A course for nonscience majors which emphasizes 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 credit for
MTH 125, 131, 154, 314, or 316 except by permission of the instructor.

Prerequisite: Two years of high school mathematics.

## UC 086, UC 087 Science

Courses for nonscience majors which provide knowledge and appreciation of science through readings, discussions, demonstrations, and laboratory work. Selected topics from the life sciences are presented in UC 086, and topics from the physical sciences are presented in UC 087. The courses may be taken independently of each other. Not open to those with credit for BIO 106 , CHM i14, PHY is 1 , or any laboratory science course. Enrollment limited to those with more than 58 credits.
Prerequisite: Two years of high school mathematics.

## COLLEGE OF ARTS AND SCIENCES

# GEORGE T. MATTHEWS, Dean <br> REUBEN TORCH, Assistant Dean 

## DEPARTMENT OF ART

Professor:
John C. Galloway, Chairman (Art and Art History)
Assistant Professors:
John L. Beardman (Art)
John B. Cameron (Art History) Acting Chairman, 19661967
Abraham A. Davidson (Art History)
Kiichi Usui (Painting) Visiting
Instructors:
Donald H. Dwyer (Art History)
Ross A. Norris (Art)

## Lecturer:

Morris Brose (Sculpture)
The professional scholars and artists who teach the program in art are dedicated to creative, disciplined training of the major and the general student alike. Each major in art receives fundamental preparation for graduate study in art history or studio art which may lead to a career in college teaching, museum curatorship, editorial work with art publishing firms, or independent practice of painting, sculpture or printmaking. The general student discovers that undergraduate study of art may reinforce his grasp of the historical and analytical factors of other specializations within the liberal arts curriculum. Knowledge of art helps to prepare any student for discerning cultural citizenship.

The Department enriches its program of instruction by presenting exhibitions in the University Art Gallery in Matilda Wilson Hall and by encouraging group or independent visits to the Detroit Institute of Arts and private collections. The Gallery also shows the best works by majors and general students enrolled in studio courses.

Several majors are selected annually by the Department to work as pre-professional assistants. These students, appointed on the basis of personal responsibility and sound academic achievement, receive training and experience invaluable to future graduate specialization.

Each major in art history and studio art is required to pass an oral examination, typically during the seventh semester and on a topic of his own choice drawn from the contents of a 400-level art course.

## Requirements for the Liberal Arts Major in Art History

Nine courses in art are required, exclusive of University Courses. At least one, but no more than three, courses may be taken in the studio area. Admission to major standing ordinarily requires completion of two Freshman Exploratories, the two social sciences, and UC 047. UC 047 should be taken during the first or second semester.

## Requirements for the Liberal Arts Major in Studio Art

Ten courses in art are required, exclusive of UC 047, FE (Art) or ART 147; and ART 226 must be completed before other studio courses may be taken. Three courses in art history, including ART 381, must be completed. One of the three art history courses must be completed before the student may take ART 226 . It is emphasized that the studio art major is a general one and that there are NO separate majors in each of the three available studio areas: painting, printmaking, and sculpture. The student must complete course work in at least two of those areas, and is strongly advised to take courses in all three of them. The requirements for major standing are identical to those for art history majors.

Requirements for the Secondary Teaching Minor in Art
Four art history and studio courses are required, beyond UC 047, FE (Art), or ART 147. Two of these courses must be ART 333 and ART 381. Consult the Chairman of the Department of Art or the Dean of the School of Education for further information.

LIBERAL ARTS MAJOR IN ART
(A typical program)

| Semester 1 | Semester 2 | Semester 3 | Semester 4 |
| :---: | :---: | :---: | :---: |
| Freshman Exploratory | Freshman Exploratory | ART 333 or 381 | ART 381 or 333 |
| University Course 047 | University Course | University Course | University Course |
| University Course | University Course | Foreign Language | Foreign Language |
| Foreign Language ${ }^{1}$ | Foreign Language | Elective | ART 226 or ART History |
| Semester 5 | Semester 6 | Semester 7 | Semester 8 |
| ART | ART | ART | ART |
| University Course | University Course | ART (400-Level) | ART (480, 490, or 491) |
| Foreign Language ${ }^{2}$ or Elective | Foreign Language ${ }^{2}$ or Elective | University Course Elective | Senior Colloquium Elective |
| Elective | Elective |  |  |

1 French and German are the preferred languages for art majors.
2 Majors are urged, and may be required, to complete two semesters of a second language beyond the four-semester requirement. (see 1 above).

## ART 147 Introduction to History and Analysis of Art

An introduction to the history and analysis of the visual arts. Designed chiefly for general elementary education majors, for whom it satisfies the University requirement in art (see also UC 047 and Freshman Exploratory in Art). May not be taken for credit by students who have taken UC 047 or Freshman Exploratory in Art.

## ART 226 Introduction to Studio Art

A study of the fundamentals of drawing, painting, and other two-dimensional media. Designed chiefly for art majors and minors; required of majors in studio art and recommended for majors in art history.
Prerequisites: It is emphasized that all students, including art majors and minors, must have completed one course in art history, exclusive of UC 047, FE (ART), and ART 147, before they may be admitted to ART 226.

## ART 326 Painting

A studio course in oil, water color, and other media. Designed mainly for art majors and minors.
Prerequisites: UC 047 or FE (ART) or ART I47; one course in art history; and ART 226.

## ART 327 Prinfmaking

A studio course in the fundamentals of graphic arts (relief, planographic, intaglio, and serigraphic processes).
Prerequisites: UC 047 or FE (ART) or ART I47; one course in art history; ART 226; and ART 326.

## ART 328 Sculpture

A studio course in third-dimensional and relief form using traditional and recent media.
Prerequisites: UC 047 or FE (ART) or ART 147; one course in art history; ART 226; and ART 326.

## ART 329 Sculpture

The development of concepts and techniques in creative sculptural form. A studio course.
Prerequisites: Major or minor standing in art and completion of ART 328.

## ART 333 American Art

Architecture, painting, and sculpture in the United States from the period of Colonial settlement until recent times. Relations to European art are stressed. Required of art majors and minors.
Prerequisite: UC 047 or FE(ART) or ART 147.

## ART 351 Primitive Art: Africa, Oceania, the Americas

The major artistic styles of the regions of primitive peoples. The relation of primitive art to recent Western art is considered.
Prerequisite: UC 047, FE (ART), or ART 147.

## ART 361 Medieval Architecture and Sculpłure

The art of the West from the time of Constantine to the Renaissance. Emphasis is placed upon the major period styles: Early Christian, Byzantine, Early Medieval, Carolingian, Romanesque, and Gothic.
Prerequisite: UC 047, FE (ART), or ART 147.

## ART 369 Renaissance Art

Architecture, painting and sculpture of the fifteenth and sixteenth centuries in Italy and northern Europe. Attention is centered upon major artists and their relationship with one another and with topical Renaissance problems such as humanism, the classical revival, and perspective.
Prerequisite: UC 047, FE (ART), or ART 147.

## ART 371 English Art, 1550-1850

Architecture, painting, and sculpture in England from the introduction of Renaissance art in the reign of Elizabeth I to the Great Exhibition of $\mathbf{1 8 5} \mathbf{I}$. In addition to a survey of

English art, special attention is given to such major figures as Inigo Jones, Wren, Adam, Reynolds, Gainsborough, Constable, and Turner.
Prerequisite: UC 047, FE (ART), or ART 147.

## ART 373 Art of the Seventeenth Century: The Baroque

The rise of the Baroque style of architecture, painting and sculpture in Italy and its development in France, Spain, and the Low Countries.
Prerequisite: UC 047 (completion of ART 369 also is recommended).

## ART 381 Twentieth-Century Art

A study of modern art in Europe and the United States from igos to the present. Painting and sculpture are emphasized in an interpretation of major styles and movements such as Fauvism, Expressionism, Cubism, DeStijl, and Abstract Expressionism. Required of art majors and minors. Prerequisite: UC 047, or FE (ART) or ART 147.

## ART 383 Modern Architecture

Architecture in Europe and America from the late Nineteenth Century to the present, coupled with an investigation of the sources of modern architectual tradition and idiom. Prerequisite: UC 047, or FE (ART) or ART 147.

## ART 426 Advanced Painting

The development of techniques and ideas in creative painting. May be taken for four or eight credits per semester. Prerequisites: Major standing in art and completion of two studio courses.

## ART 427 Advanced Printmaking

The development of ideas and processes of graphic arts (relief, planographic, intaglio, and serigraphic). May be taken for four or eight credits.
Prerequisites: ART 226 and ART 327.

## ART 428 Advanced Sculpture

The development of advanced creative and technical problems in sculptural media.
Prerequisites: Major standing in art and completion of two courses in art history and ART 329.

## ART 455 Greek and Roman Art

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.
Prerequisite: UC 047, or FE (ART), or ART 147.

## ART 465 Byzantine Art

The course deals with the development of Byzantine architecture, mosaic, painting, and sculpture from the time of Justinian in Byzantium and Italy to the fifteenth century in Russia and the Balkans.
Prerequisites: UC 047 or FE (ART) or ART 147, and ART 361 or ART 455.

## ART 473 Art of the Eighteenth Century: The Rococo

The evolution and spread of the Baroque style throughout the western world, with emphasis on central Europe and the Spanish Colonial possessions. The emergence and spread of the Rococo until the final reaction of Neo -Classicism.
Prerequisites: UC o47 or FE (ART) or ART 147 (completion of ART 373 is recommended).

## ART 480 Seminar in Art History

The course initially familiarizes art majors with the literature and research facilities of art history. Individual topics of special interest are then assigned for intensive study. Required of all majors in art history and recommended for studio art majors. May be taken for four or eight credits. Prerequisites: UC 047 or FE (ART) or ART 147 , and two courses in art history.

## ART 490 Special Problems in Studio Art

Individually assigned projects in painting, printmaking, or sculpture. May be taken for four or eight credits.
Prerequisites: Senior standing as art major, and completion of two courses in art history and two courses in studio.

## ART 491 Special Problems in Art History

A program of individually assigned research problems, designed for the advanced major in art history. May be taken for four or eight credits.
Prerequisites: Major standing in art and completion of three courses, at least one of them 400 -level, in art history.

## DEPARTMENT OF BIOLOGY

## Professors:

Clifford V. Harding, Chairman
Reuben Torch
W'alter L. Wilson
Associate Professor:
William C. Forbes
Assistant Professors:
Francis M. Butterworth
Herbert Schuel
Nalin Unakar
National Institutes of Health
Post-doctoral Fellow:
John Reddan
The courses in biology are designed for students in two types of major: liberal arts majors and secondary education teaching majors. The liberal arts major prepares the student for graduate studies in the life sciences, laboratory and research work in industries concerned with biological materials, and professional careers in medicine, dentistry, and allied fields. The pre-medical student will be especially well-prepared by the liberal arts program outlined here. Since modern biology is an exact science, corequisite training in chemistry, physics, and mathematics are necessary.

The secondary education biology teaching major, with group minor in chemistry and physics, is designed for the student wishing to teach in junior high school and 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 must include eight lecture courses. (Corresponding lecture and laboratory courses must be taken simultaneously.) In addition, sixteen credits in chemistry, ten credits in physics, and eight credits in mathematics are required.

Admission to major standing requires fifteen credits in biology plus eight credits in any combination of the required courses in mathematics, physics and chemistry.

Requirements for the Secondary Teaching Major in Biology
Forty credits in biology are required. The group minor requirement is satisfied by a total of 24 credits in the fields of chemistry and physics. Additional requirements include eight credits in mathematics and the following education courses: ED 244-245, ED 428, and ED 455.

Admission to major standing requires fifteen credits in biology; eight credits in any combination of the required courses in mathematics, physics and chemistry; acceptance by the department of biology and concurrent acceptance into the Teacher Education Program.

## LIBERAL ARTS MAJOR IN BIOLOGY

(A typical program)

| Semester 1 | Semester 2 | Semester 3 | Semester 4 |
| :---: | :---: | :---: | :---: |
| Freshman Exploratory | Freshman Exploratory | BI0 221-222 | B10 Lecture \& Lab |
| BIO 111-112 | BIO 113-114 | PHY 152 | CHM 114-117 |
| MTH 154 | MTH 115 | PHY 158 | Foreign Language* |
| University Course | PHY 151 | University Course |  |
| Semester 5 | Semester 6 | Semester 7 | Semester 8 |
| BIO Lecture \& Lab | BIO Lecture \& Lab | BIO Lecture \& Lab | BIO Lecture \& Lab |
| CHM 115-118 | CHM 234-237 | CHM 335-3381 | Senior Colloquium |
| Foreign Language | Elective | Elective | University Course |

*German, French, or Russian (other languages may be substituted with permission of the Department of Biology)
1Substitution possible with permission of the Department of Biology.

## SECONDARY TEACHING MAJOR IN BIOLOGY WITH A GROUP MINOR IN CHEMISTRY AND PHYSICS

## (A typical program)

| Semester 1 | Semester 2 | Semester 3 | Semester 4 |
| :---: | :---: | :---: | :---: |
| Freshman Exploratory | Freshman Exploratory | B10 221-222 | B10 Lecture \& Lab |
| BIO 111-112 | B10 113-114 | PHY 152 | CHM 114-117 |
| MTH 154 | MTH 155 | PHY 158 | ED 245 |
| University Course 05 | PHY 151 | ED 244 | Elective |
| Semester 5 | Semester 6 | Semester 7 | Semester 8 |
| BIO Lecture \& Lab | B10 Lecture \& Lab | Bl0 Lecture \& Lab | ED 428 |
| CHM 115 | CHM 234-237 | BIO Lecture \& Lab | ED 455 |
| Foreign Language* | Foreign Language | Senior Colloquium |  |
| Elective |  |  |  |
| *German, French, or Rus Department of Biology |  |  |  |

The following courses are open to all students, and are ordinarily not counted toward the biology major requirements. (They may be used to fulfill the science U.C. requirements for non-science majors.)

BIO 104 Biology of the Human
The biology of man. Cells, tissues, organs, conduction, contraction, circulation of blood and lymph, breathing, digestion, and excretion will be discussed.

## BIO 105 Biology of the Human

Integration and correlation: the central nervous system, the endocrine system, and reproduction will be discussed.
Prerequisite: BIO 104 or permission of instructor.

## BIO 108 Bio-engineering

Selected topics to introduce students of engineering to biological systems. Communication, movement, circulation, excretion, and problems of abnormal environment will be discussed.

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

## BIO 111 Biology

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, and higher taxonomic groups and biota. Basic principles will be emphasized.

## BIO 112 (formerly 117) Biology Laboratory (1 credit)

To accompany BIO rir.

## BIO 113 (formerly 112) Biology

Continuation of III.

## BIO 114 (formerly 118) Biology Laboratory (1 credit) To accompany BIO $1 \times 3$.

## BIO 221 Vertebrate Anatomy and Psysiology

Detailed study of vertebrate anatomy and physiology through an intensivs study of selected vertebrate types. Prerequisite: BIO 113 .

## BIO 222 (formerly 227) Vertebrate Anatomy and Physiology Laboratory (1 credit)

To accompany BIO 22 I.

BIO 223 (formerly 222) Histology
The microscopic anatomy and histochemistry of vertebrate tissues and organs, in relation to tissue function.
Prerequisite: BIO 1 r3.
BIO 224 (formerly 228) Histology Laboratory (1 credit)
To accompany BIO 223 .

## BIO 231 Microbiology

A discussion of the classification, morphology and physiology of microorganisms.
Prerequisite: BIO 1 r3.
BIO 232 Microbiology Laboratory (1 credit)
To accompany BIO 23 I .

## BIO 241 Plant Morphology

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 24 I .
BIO 243 Plant Physiology
Mineral nutrition, absorption and translocation, metabolism, hormonal control, dormancy, growth and reproduction, and physiological responses to the environment.
Prerequisite: BIO 24 I.
BIO 244 Plant Physiology Laboratory (1 credit)
To accompany BIO 243 .
BIO 301 Ecology
The relationships of organisms to one another and to their environment.
Prerequisite: BIO II 3.
BIO 302 Ecology Laboratory (1 credit)
To accompany BIO 30 .

## BIO 323 Developmental Biology

The principles of development. Modern concepts of early differentiation and development of organ systems. The control of growth and regeneration.
Prerequisite: BIO 223.
BIO 324 (formerly 327) Developmental Biology Laboratory (1 credit)
To accompany BIO 323.

## BIO 341 (formerly 342) Genetics

The physical and chemical basis of inheritance. Selected topics in human genetics, microbial genetics, biochemical genetics, and cytogenetics.
Prerequisite: BIO 113.
BIO 342 (formerly 348) Genetics Laboratory
To accompany BIO 34 r .

## BIO 403 Protozoology

Recognition, morphology, reproduction and physiology of the more important taxonomic groups of the Protozoa.

## BIO 404 Protozoology Laboratory (1 credit)

To accompany BIO 403.
BIO 405 Special Topics (2, 3, or 4 credits)
Prerequisite: Permission of instructor.

## BIO 407 Cellular Biochemistry

An integrated discussion of the principles of biochemistry in relation to cell structure and function. The following topics will be considered: composition and properties of proteins, carbohydrates and lipids; isolation of subcellular organelles and molecular constituents; enzyme chemistry; intermediary metabolism; bio-energetics; biochemical characteristics and physiological roles of subcellular organelles; photosynthesis; control of cellular metabolism; permeability and active transport; muscle contraction and cell division.
Prerequisites: BIO 113, CHEM 234, PHY 152; CHEM 244 desirable.

BIO 408 Cellular Biochemistry Laboratory (1 credit)
To accompany $\mathrm{BIO}_{403}$.
An introduction to modern research procedures in biochemistry and cellular physiology. The laboratory work will include: spectrophotometric analysis of biological compounds; chromatographic and electrophoretic techniques; enzyme kinetics; isolation and characterization of subcellular organelles; cellular permeability; individual research projects.

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

## BIO 425 Biophysics

Physical aspects of living systems. Conduction, transmission, contraction, circulation, respiration, excretion, and cell division will be discussed.

BIO 426 Biophysics Laboratory (1 credit)
To accompany BIO 425 .
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.
Prerequisites: BIO 323, BIO 324, and CHEM 234.
BIO 436 Biochemical and Biophysical Genetics Laboratory (1 credit)
To accompany BIO 435 .
BIO 437 Virology
Prerequisite: BIO 23 I.
BIO 438 Virology Laboratory (1 each)
To accompany BIO 437.

BIO 441 Microbial Genetics
A discussion of the genetics of microbial systems, including molds, bacteria, protozoa and viruses.
Prerequisites: BIO 23 I and BIO 34 x .
BIO 442 Microbial Genetics Laboratory (1 credit)
To accompany BIO 44 I .
BIO 445 Ultrastructure
A consideration of the fine structure of cells and cell products as revealed by electron microscopy and other procedures.
Prerequisite: BIO 223.
B1O 446 Ultrastructure Laboratory (1 credit)
To accompany BIO 445 .
BIO 455 Seminar
Discussion of recent publications in the biological sciences.

## BIO 463 Cell Biology

Prerequisites: BIO 223 and permission of instructor.
BIO 464 (formerly 467) Cell Biology Laboratory (1 credit)
To accompany BIO 463 .
BIO 471 Physiology
Prerequisites: BIO 223 and permission of instructor.
BIO 472 (formerly 477) Physiology Laboratory (1 credit) To accompany BIO 47 I .

BIO 490 Individual Laboratory Work (2, 3 or 4 credits)
Prerequisite: Permission of instructor.

## DEPARTMENT OF CHEMISTRY

Associate Professors:
Paul Tomboulian, Chairman
Gottfried Brieger
Frederick Obear
Assistant Professors:
James Davis
Lawrence Friedman
Steven Miller
Joel Russell

The courses in chemistry are designed for several types of students: those desiring to pursue graduate or professional work in chemistry, those preparing to teach chemistry in high school, and those in other sciences and mathematics who need a background in chemistry. The undergraduate curriculum for liberal arts majors is a highly prescriptive and specialized professional program intended for those students planning graduate studies, or work in research and analytical laboratories. The undergraduate curriculum for secondary education majors is very similar to the liberal arts major, except that the required education courses are included so that a graduate of this program may be sponsored for certification. It should be noted that graduate work is necessary for university teaching positions and for the more responsible and executive positions in the chemical industry.

## Requirements for the Liberal Arts Major in Cbemistry

Forty-eight credits in chemistry are required. Of these, thirty-one credits must be in lecture courses, including CHM 235, 245, 324, 412. At least thirteen credits must be chosen in laboratory courses, including CHM 238, 248, 328. Twenty-six credits in mathematics and physics are required, including PHY 158, PHY 371, and MTH 258 or 259. Admission to major standing requires a total of thirty-two credits in chemistry, physics, and mathematics.

Requirements for the Secondary Teacbing Major in Cbemistry
Thirty-two credits in chemistry are required, including CHM 234, 244, 324, and 412 . Eight credits in mathematics are required, including MTH is5. Ten credits in physics are required. To complete the group minor in mathematics and physics, an additional eight or ten credits in mathematics or physics are recommended. Other minors may be arranged by the Department in consultation with the student. The following education courses are required: ED 244-245, 428, 455. Admission to major standing requires a total of twenty-eight credits in chemistry, physics, and mathematics.

## Requirements for a Teaching Minor

Twenty credits in chemistry courses are required.

## LIBERAL ARTS MAJOR IN CHEMISTRY

## (A typical program)

| Semester 1 (Fall) | Semester 2 (Winter) | Semester 3 (Spring) | Semester 4 |
| :---: | :---: | :---: | :---: |
| Freshman Exploratory | Freshman Exploratory | CHM 234 | CHM 235 |
| CHM 114-117 | CHM 115-118 | CHM 237 | CHM 238 |
| MTH 154 | MTH 155 | PHY 158 | GRM 101 |
| PHY 151 | PHY 152 | University Course | PHY 371 |
| Semester 5 (Winter) | Semester 6 (Spring) | Semester 7 (Fall) | Semester 8 (Winter) |
| CHM 244 | CHM 245-248 | CHM 412-417 | CHM Elective |
| MTH 259 | CHM 324 | CHM Elective | CHM Elective |
| GRM 102 | CHM 328 | University Course | Senior Colloquium |
| University Course | University Course | Elective ${ }^{1}$ | Elective ${ }^{1}$ |

The two and two-thirds years program outlined is the normal curriculum. The omission of one spring semester is often possible, so that a major still can be completed in three calendar years. For specific details of scheduling, the department should be consulted.

1Students planning graduate work should complete additional courses in chemistry, physics, or mathematics.

## SECONDARY TEACHING MAJOR PROGRAM IN CHEMISTRY <br> (A typical program)

| Semester 1 (Fall) | Semester 2 (Winter) | Semester 3 (Spring) | Semester 4 |
| :---: | :---: | :---: | :---: |
| Freshman Exploratory | Freshman Exploratory | CHM 234-237 | CHM 235 |
| CHM 114-117 | CHM 115-118 | PHY 158 | PHY 371 |
| MTH 154 | MTH 155 | University Course 054 | ED 244 |
| PHY 151 | PHY 152 | University Course | GRM 101 |
| Semester 5 (Winter) | Semester 6 (Spring) | Semester 7 (Fall) | Semester 8 (Winter) |
| CHM 244 | CHM 324 | CHM 412 | ED 428 |
| MTH 259 | CHM Elective | PHY Elective | ED 455 |
| ED 245 | University Course | Senior Colloquium |  |
| GRM 102 | Elective | Elective |  |

The two and two-thirds years program outlined is the normal curriculum. The omission of one spring semester is often possible, so that a major still can be completed in three calendar years. For specific detail of scheduling, the department should be consulted.

CHM 114 Chemistry
An introduction to the study of gases, liquids, solids, atomic and molecular structure, stoichiometry, equilibria, thermodynamics, and nuclear chemistry.
Prerequisite: Three years of high school mathematics. Concurrent registration in MTH 154 is expected.
Offered in fall semester only.

CHM 115 Chemistry (3 credits)
Continuation of CHM 114 .
Prerequisite: CHM ris.
Offered in the winter semester only.

## CHM 117 Chemistry Laboratory (1 credit)

Experiments illustrating principles and techniques of quantitative and qualitative chemistry.
Prerequisite or corequisite: CHM II4.
CHM 118 Chemistry Laboratory ( 2 credits)
Continuation of CHM 117 with emphasis on instrumental methods.
Prerequisite: CHM II4.

## CHM 234-235 Organic Chemistry

Functional groups, reaction mechanisms, stereochemistry, rearrangements, polymers, and natural products.
Prerequisites: CHM ins, and CHM in7 or CHM ins.
CHM 237-238 Organic Chemistry Laboratory ( 2 credits each)
Qualitative analysis and synthetic techniques of modern organic chemistry.
Prerequisite or corequisite: CHM 234-235.

## CHM 244-245 Physical Chemistry

Physical interpretation of chemical phenomena thermodynamics, phase transitions, reaction kinetics, molecular structure, spectroscopy, and kinetic theory of gases.
Prerequisites: CHM 115 , MTH 155 , PHY 152; PHY 371 is highly recommended.
CHM 248 Physical Chemistry Laboratory (2 credits)
Laboratory coordinated with CHM 245. Prerequisite or corequisite: CHM 245 .
CHM 324 Analytical Chemistry ( 2 credits)
Advanced quantitative techniques and measurements; theory and application of modern instrumentation to chemical problems.
Prerequisites or corequisites: CHM 237, CHM 245, PHY 152.
CHM 328 Analytical Chemistry Laboratory ( 2 credits)
Laboratory coordinated with CHM 324.
Corequisite: CHM 324.

CHM 351 Biochemistry (3 credits)
Proteins, enzymes, nucleic acids, cellular nutrition, energetics of biological reactions, photosynthesis, biological oxidations, metabolism of carbohydrates, lipids, and nitrogen compounds. Prerequisite: CHM 234

CHM 357 Biochemistry Laboratory (1 credit) Prerequisite or corequisite: CHM 35 r .

## CHM 361 Radiochemistry (3 credits)

Nuclear structure and stability, nuclear reactions, decay schemes, dosimetry, radioisotope production, tracer applications, radioisotope methodology; includes laboratory. Prerequisite: Permission of the department.

## CHM 387 Advanced Preparations (2 credits)

Specialized laboratory work in selected areas emphasizing advanced techniques.
Prerequisite: Permission of the department
CHM 405 Selected Topics ( 2,4 , or 6 credits)
Advanced study in special areas: seminars, laboratory work, and readings.
Prerequisite: Permission of the department.
CHM 412 Inorganic Chemistry (3 credits)
Development of atomic theory, chemical periodicity, coordination compounds, and non-aqueous systems.
Prerequisite or corequisite: CHM 245 .
CHM 417 Inorganic Chemistry Laboratory ( 2 credits)
Advanced preparatory techniques; methods of purification and analysis.
Prerequisite or corequisite: CHM 412 .
CHM 490 Research ( 2,4 , or 6 credits)
Laboratory and library practice in research.
Prerequisite: Permission of the department.

## CHM 513 Coordination Chemistry

A study of the transition metals in complex inorganic compounds with particular emphasis on bonding and structure as derived from spectral and magnetic properties. Inorganic reaction mechanisms and stereochemistry are also discussed. Prerequisite: CHM 4 ${ }^{12}$, or equivalent.

## CHM 515 Inorganic Reaction and Structure

An introduction to the modern theory of the chemical bond and to the principles of structural inorganic chemistry followed by 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 412, or equivalent.

## CHM 531 Organic Synthesis

Theory and practice of synthetic and degradative methods of organic chemistry. Applications of modern techniques will be emphasized.
Prerequisite: CHM 235, or equivalent.

## CHM 533 Organic Mechanisms

Application of modern electronic theory to the structures and reactions of organic compounds. Preparative reactions from the recent chemical literature will be emphasized.
Prerequisite: CHM 235, or equivalent.

## CHM 534 Natural Products

The application of modern synthetic and analytical methods in selected areas of natural product chemistry.
Prerequisite: CHM 235, or equivalent.

## CHM 535 Analytical Organic Chemistry

Detailed treatment of instrumental and physical methods as applied to the structural determination of organic compounds.
Prerequisite: CHM 238, CHM 328; or equivalent.

## CHM 543 Statistical Thermodynamics

The statistical basis of thermodynamics; ensembles, partition functions, and distribution functions; classical and quantum statistical mechanics; applications to simple physical and chemical systems.
Prerequisites: CHM 245, PHY 152, MTH 258; or equivalent.

## CHM 544 Quantum Chemistry

This course will begin with an introduction to the fundamental mathematics of quantum mechanics with applications to problems of atomic structure and spectra, followed by some simple problems in covalent bonding, molecular orbital calculations and interpretation of molecular electronic spectra.
Prerequisites: CHM 245, PHY 152, and MTH 258, or equivalent.

## CHM 545 Quantum Chemistry

The quantum-mechanics of molecular energies and structure will be presented, and the interpretation of infra-red, Raman, nuclear magnetic resonance, electron spin resonance and other spectra will be discussed. Applications of spectroscopy to problems of molecular structure, intermolecular forces, and chemical reactions may be studied.
Prerequisites: CHM s44, CHM 543 desirable.

## CHM 551 Genetic Biochemistry

The biochemical basis of heredity; structure and genetic functions of DNA, RNA, and proteins; genetic control of cell biochemistry; biochemistry of viruses and bacteria.
Prerequisites: CHM 234, 244, or equivalent. Courses in biology are desirable.
CHM 690 Research ( $2,4,6,8,10$, or 12 credits)
Directed research and study carried out under the supervision of a faculty member.
Prerequisite: Permission of the department.

## DEPARTMENT OF CLASSICAL LANGUAGES AND LITERATURES

Associate Professor:
Howard Clarke, Chairman
Lecturers:
Norman G. McKendrick
Edmund F. Miller
Requirements for the Liberal Arts Major in Classical Languages
Nine courses, in addition to four courses in Latin (LTN 114-1Is, LTN 214-215) used to satisfy the University Course language requirements. A typical classics major would include:
three courses in Latin (LTN 320, LTN 414-415) ; four courses in Greek (GRK if4-IIs, GRK 2I4-2IS); two courses in classics. Those planning graduate work in classics should complete in addition to the above nine courses: one in Latin literature; two courses in Greek; two courses in classics. Admission to major standing requires two Freshman Exploratories, and four courses in Latin.

## Requirements for the Liberal Arts Major in Latin

Nine courses in Latin and classics, in addition to the courses fulfilling the University Course language requirement. A typical program would include: five courses in LTN 320; two courses in LTN 414-415; two courses in classics. Admission to major standing requires two Freshman Exploratories, and four courses in Latin.
Requirements for the Secondary Teaching Major in Latin
Eight courses in Latin and classics, in addition to the courses fulfilling the University Course language requirement. A typical program includes: four courses in LTN 320; two courses in L'TN 414-415; two courses in classics. The following education courses are also required: ED 245-246, ED 428, 455 . Admission to major standing requires two Freshman Exploratories, four courses in Latin, acceptance by the Department of Classical Languages and Literatures, and concurrent acceptance into the Teacher Education Program.

## CLS 111, 112 Classical Literature in Translation

A series devoted to the major writers of Greece and Rome. Either semester may be elected independently.
Prerequisites: Two Freshman Exploratories

## CLS 117 The Classical Tradition

A study of the classical influence on Western culture. Some attention is given to the visual arts, but the emphasis is on classical traditions in European literature.
Prerequisites: Two Freshman Exploratories

## CLS 301, 302 Classical Civilization

A two-semester survey of the history and culture of Greece and Rome. Either semester may be elected independently.

## CLS 303, 304 Classical Literature in Translation

A two-semester survey of the major writers of Greece and Rome. Either semester may be elected independently.

## CLS 312 Classical Mythology

The principal Greek and Roman myths and their uses in classical and postclassical art and literature.

## CLS 317 The Classical Tradition

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

A survey of the aims, methods, achievements and limitations' of ancient historiography through a reading, in translation, of the most prominent ancient historians.

## GRK 114-115 Elementary Greek

Classical Greek. Elements of grammar and some connected reading will be studied. May be conducted as a tutorial.

## GRK 214-215 Intermediate Greek

Review of grammar, exercise in prose composition, and the reading of simple literary works, ordinarily Plato's Apology, selections from Herodotus, and selected books of Homer's Iliad. May be conducted as a tutorial.
Prerequisite: GRK 115

## GRK 320 Selections from Greek Literature

Greek drama and history. Selected dramas of Aeschylus, Sophocles, Euripides, and Aristophanes, and selections from Herodotus and Thucydides. May be conducted as a tutorial. May be taken for one or more semesters. Prerequisite: GRK 215

## GRK 414-415 Survey of Classical Greek Literature

Readings in classical Greek literature from Homer to the Hellenistic Age. Selections will be chosen to illustrate the historical development of Greek literature. May be conducted as a tutorial.
Prerequisite: GRK 320

## LTN 114-115 Elementary Latin

The first semester is devoted to elements of grammar; the second semester to a review of grammar, exercises in composition, and the reading of simple selections from Latin prose and poetry.

## LTN 214-215 Intermediate Latin

The first semester is devoted to selections from Cicero, Catullus, and Horace; the second semester to the reading of extensive selections from Virgil's Aeneid.

## LTN 320 Selections from Latin Literature

A detailed study of selected works by major Latin writers. May be conducted as a tutorial. May be taken for one or more semesters.
Prerequisite: LTN 215

## LTN 414-415 Survey of Classical Latin Literature

Readings will be selected from representative writers of the Republic and Empire and will be chosen to illustrate the historical development of Latin literature.
Prerequisite: LTN 320

## DEPARTMENT OF ECONOMICS AND BUSINESS ADMINISTRATION

Professor:
Theodore O. Yntema (Visiting)
Associate Professor:
Robbin R. Hough, Chairman
Siddheshwar Mittra
Norton C. Seeber
Assistant Professor:
Eleutherios N. Botsas
Instructor:
John Hurd II
Edward Starr

## Lecturer:

William J. Leininger
The curriculum in economics emphasizes concepts and tools of analysis and their application to problems of policy. By learning ways of thinking in economics, students gain insights into how to approach economic questions in applied areas. Students are prepared for careers in industry and government or for graduate study of economics, law, or business.

Requirements for the Major in Economics
The major in economics requires UC o56, EB 216, 217, 480 and three other courses in the department, one of which must have as prerequisite EB 216 and another which requires EB 217 as prerequisite. In addition, all majors must complete two semesters of work in another social science as well as MTH 125 and MTH i3r (the latter two should be taken in the first year). Admission to major standing requires two Freshman Exploratories, EB 216, and EB 217.

## BUSINESS ADMINISTRATION

The program in business emphasizes a broad general education and the development of an analytical approach that will enable students to devise new answers to the increasingly complicated and changing problems faced by the business community. Because education for business is a lifelong process, we seek to give students the kind of education that will provide the foundation for self-education during their business careers. Consequently, the basic principles of business practice are emphasized. The business major obtains the necessary background for entering training programs of business or graduate schools of business.

## AcCounting and marketing

For students desiring special preparation in the fields of accounting and marketing, the EB 2OI-4OI and EB 202-402 sequences provide the opportunity for the development of these specialized skills. The sequence is designed to encourage independent thought and stimulate the application of the tools of economic analysis to problems in these specialties.

## Requirements for the Major in Business Administration

The requirements are UC os 6 and ten other departmental courses. Of the ten, two are in economics (EB 216, 217); eight are the functional areas, including EB 301, EB 435 , and EB 442.

In related social science areas, four courses are required: two courses in psychology (UC os4, PSY 26r) and two courses in either political science or sociology. The mathematics requirement is three courses: MTH 125 , MTH 13 I (taken in the first two semesters), and MTH 321. Admission to major standing requires two Freshman Exploratories, EB 216, and EB 217.

## EB 201 Elements of Accounting

A programmed introduction to the elementary concepts of accounting.
Prerequisite: UC os 6 or permission of the instructor

## EB 202 Elements of Marketing

A programmed introduction to the elementary concepts of marketing.
Prerequisites: EB 216 and EB 217.

## EB 216 Micro-Economic Analysis

Analysis of prices, output, and distribution at the level of the individual firm.
Prerequisites: UC os 6 and MTH 13 r.

## EB 217 Macro-Economic Analysis

Study of factors determining the level of national income and employment.
Prerequisites: UC 056 and MTH 125 .

## EB 223 The Indian Economy

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

## EB 301 Accounting and Statistical Techniques

Accounting systems for individual firms and the national economy. Use of statistical techniques to solve problems faced by firms and industries. Offered in fall semester.
Prerequisites: UC os 6 and permission of the instructor.

## EB 303 Business Fluctuations and Economic Forecasting

 Analysis and empirical testing of business-cycle theories. Preparation of economic forecasts for the individual firm and the national economy. Offered in fall semester.Prerequisite: EB 217

## EB 322 Capital Markets

Corporate and public finance, and the operation of major financial institutions and markets. Offered in fall semester. Prerequisite: EB 217

## EB 323 International Trade and Finance

Principles of international trade and finance, postwar international economic problems and policies. Offered in winter semester.
Prerequisite: EB 216

## EB 324 Business in the American Economy

Public attitudes toward and government regulation of business; social and legal responsibilities of business. Offered in winter semester.
Prerequisite: EB 216

## EB 325 Industrial Organization

Resource patterns, production processes (including technology and economics of scale), and managerial organization as related to the size of firms and the location of industries. Offered in fall semester.
Prerequisite: EB 216

## EB 326 Economic Development

Application of the tools of economic analysis to the problems of underdeveloped countries. Offered in winter semester. Prerequisite: UC o56 or permission of the instructor.

## EB 333 Labor-Management Relations

Analysis of management-employee relations in modern industry; public policy in labor-management areas. Offered in fall semester.
Prerequisites: UC os 6 and permission of the instructor.

## EB 334 Business Enterprise

Origin and evolution of contemporary business institutions; social, philosophic, legal, and economic foundations of the modern corporation. Offered in winter semester.
Prerequisites: UC os 6 and permission of the instructor.

## EB 342 Stimulation in Economics

An introduction to the use of simulation techniques.
Prerequisites: Major Standing and permission of the instructor.

## EB 401 Readings in Accounting

Directed readings in accounting systems.
Prerequisites: Major Standing and EB 20 I.

## EB 402 Readings in Marketing

Directed readings in the classic literature of marketing. Prerequisites: Major Standing and EB 202.

## EB 405 Econometrics

An introduction to the testing of economic models, expressed mathematically, by statistical methods.
Prerequisites: EB 216, EB 217, EB 301, and permission of the department.

## EB 435 Business Policies

Financial, economic, and other management tools used to analyze business case studies. Offered in winter semester. Prerequisites: EB 216 and EB 217.

## EB 442 Operations Research

Operations research techniques are used in exploring problems selected from the several functional areas of business. Offered in winter semester.
Prerequisites: EB 216 and EB 217.

## EB 480 Seminar

Theses, individual topics, and readings.
Prerequisite: Permission of the Department.

## EB 490 Independent Research

Prerequisite: Permission of the Department.

## DEPARTMENT OF ENGLISH LANGUAGE AND LITERATURE

Professors:
Robert Hoopes, Chairman
Thomas Fitzsimmons
Mrs. Gertrude M. White
William Schwab
Associate Professors:
John G. Blair
Maurice F. Brown (Acting Chairman, 1966-67)
Joseph DeMent
F. Eugene Haun (Visiting, 1966-67)

Assistant Professors:
Peter G. Evarts
Richard Lyons
Mrs. Marilyn L. Williamson

## Instructors:

Louis Buchanan
Frederick Hughes
David W. Mascitelli
Special Instructors:
Mrs. Phoebe Chao
Mrs. Joan G. Rosen
Assistant Instructor:
Miss Susan Craine
Purpose of English studies: to improve upon silence.
The English major is in profile the same for Liberal Arts and Teacher Education concentrations. Requirements have been cast so as to provide at once a solid base in the discipline of letters and an opportunity for each student to shape certain specifics within the course of study as they seem to him best fitted to his abilities and ambitions. Students planning to attend graduate school should select courses on a basis here and there different from that of those who look upon the B.A. as a terminal degree; students completing the Secondary School Teaching Concentration will want a course of study in places different from that of the straight Liberal Arts student. Consequently, it is extremely important that all students majoring in English
take the initiative and actively seek guidance in the exercise of choices open to them. Unless specifically noted, all one-semester courses listed below earn four credits.

Requirements for the Liberal Arts and Secondary Teaching MAJOR in English:

40 credits in all are required for completion of the MAJOR.

12 units may be elected from all Departmental offerings at the 200 level or above; (the Department will accept up to 4 units of credit in the study of literature in another language).
28 units must be distributed as follows:
8 units: Major British and American Writers (141-142)-for English majors this two-semester course is prerequisite to all other Departmental offerings; either semester will satisfy the UC Western Literature requirement.
8 units: English Literature (course numbers ending in 51 through 75).

8 units: American Literature (course numbers ending in 16 through 40.

Four of these 16 units in English and American Literature must be taken in a single-author course ( 400 level).
4 units: Language Analysis (course numbers ending in 76 through 83, except 376 for Secondary Teaching Concentrators).
Requirements for the Secondary Teaching MINOR in English: 24 credits in all are required for completion of the MINOR:

8 units may be elected from all Departmental offerings.
i6 units must be distributed as follows:
8 units: Both semesters of Major British and American Writers (141-142), or either semester plus the UC Western Literature course.

4 units: Language Analysis or Writing (courses ending in 76, except for 376, through 90).
4 units: American Literature, a 300 level course.

## ENG 009 Aids to Expository Writing ( 0 credit ${ }^{\star}$ )

A course designed to assist students in developing the basic skills of writing expository prose. Admission is by permission of instructor.
*Grade of S or U appears on transcript.

## ENG 141-142 Major British and American Writers

Reading of the works of a limited number of selected authors.
The first semester (14r) will move from early to 18 th century British literature; the second ( 142 ) will focus on later British and American writing.

## ENG 200 Topics in Literature and Language

Topics and problems selected by the instructor.

## ENG 201-209 Major Literary Forms

Introductions to the analysis and enjoyment of the following:
ENG 20I Poetry
ENG 202 Epic
ENG 207 Drama
ENG 208 Biography
ENG 209 Novel

## ENG 210 Fundamentals of Exposition

Study of the process of expository writing. Literary models form basis for discussion of diction, style, form and purpose. Class and individual criticism of student papers.

## ENG 224 American Writers

Readings in representative works designed to introduce students to the American literary experience.

## ENG 275 Modern British Writers

The principal works, themes, and techniques of major twentieth-century British writers. Special attention will be given to the works of W. B. Yeats, James Joyce, T. S. Eliot, among others.

ENG 276 The Nature of Language
A general introduction to linguistics and semantics; the description, comparison, and history of languages, the grammar of English, problems of usage, dialect geography, differences between speech and writing, stylistic techniques of language learning and teaching, and the relation of language to the larger culture.

## ENG 300 Special Topics in Literature and Language

 Special topics and problems selected by the instructor.
## ENG 310 Advanced Exposition

Practice in non-fictional writing, primarily the critical essay. Close criticism of students' writing, individually and in class. Continuous discussion of the meanings of style. No news or editorial writing. Enrollment limited to fifteen. Students desiring to enroll should submit samples of their work during the semester preceding that in which the course is given.

## ENG 317 Early American Literature

Studies in American literature before 1820 . At the discretion of the instructor, the course may concentrate on type or movement within the period.

## ENG 322 Nineteenth Century American Fiction

Selected readings in American fiction from Washington Irving to Henry James.

## ENG 324 American Romanticism

A study of various manifestations of the romantic movement in America with readings drawn primarily from the poetry, essays, and fiction of the pre-Civil War period.

## ENG 332 Modern American Fiction

Readings in American fiction from Henry James to World War II.

ENG 333 Modern American Poetry
Studies in the poetry of the first half of the twentieth century.

## ENG 340 American Writing Now

American fiction, poetry and drama.

## ENG 353 Old English Literature

A study of the literature of England from the beginning to Norman Conquest. Primary focus on the Old English lyric and epic.

## ENG 354 Medieval Literature

Dominant forms and themes from the Anglo-Saxons to about 1550, excluding Chaucer. Ballad and drama, chivalric romance, the code of courtly love, the sacred and the secular in medieval civilization. Representative works and authors include Gawain and the Green Knight, Piers Plowman, Malory, Lydgate, Skelton.

## ENG 355 Literature of the English Renaissance

Selected poetry and prose, non-dramatic and dramatic, exclusive of Shakespeare; the Renaissance (roughly is50-1660) as a historical and cultural phenomenon.

## ENG 360 Metaphysical Poetry

Study of the poetry of Donne, Herbert, Crashaw, Vaughan, and Traherne.

## ENG 368 Eighteenth Century Literature

The chief works of Swift, Pope, and Johnson, together with whatever coincides with the particular emphasis of the course in a given year. Classicism, pre-Romanticism, Rise of the Novel, Form and Feeling, and Primitivism are examples of various topics around which readings may cluster.

## ENG 370 The Romantic Period

Poets of the Romantic Period - Wordsworth, Coleridge, Scott, Byron, Shelley, Keats - with some attention to the pre-Romantics, Burns and Blake. Their poetry and its relation to the intellectual currents of the time.

ENG 371 Victorian Literature
A selection of fiction, prose, and poetry of the middle and late nineteenth century. Representative authors include Dickens, Thackeray, Meredith, Tennyson, Browning, and Arnold.

## ENG 375 Modern Literature

Modern British, American, and/or Continental literature, with special concentration on the work and development of a single writer.

## ENG 376 History of the English Language

A detailed survey of the English language from its beginnings to modern times. (Does not satisfy the English major requirement for a course in Language Analysis for secondary teaching concentrations.

## ENG 377 Modern English Grammar

A survey of English structure, especially of syntax, with descriptions based on the work of important contemporary scholars.

## ENG 390 Literary Criticism

Problems in the analysis of literature and practical difficulties in evaluating individual works. Readings in important modern and earlier schools of criticism, together with relevant works of literature. Enrollment limited.

ENG 400 Advanced Topics in Literature and Language Advanced topics and problems selected by the instructor.

## ENG 410 Imaginative Writing

Designed to provide potential writers of fiction, poetry, and drama with an opportunity to develop technical proficiency and receive criticism of work in progress. Students desiring to enroll should submit samples of their work during the semester preceding that in which the course is given. Enrollment limited.

## ENG 425 Melville

An intensive study of the fiction and poetry of Herman Melville, including attention to various critical approaches.

## ENG 430 Henry James

The novels, shorter fiction and literary criticism of Henry James. The course will include work in biographical and critical approaches.

## ENG 451 Chaucer

The major works, with emphasis on The Canterbury Tales and Troilus and Crisevde.

## ENG 460 Shakespeare

Reading and discussion of a dozen or more plays; course designed to meet needs of secondary teaching majors, but recommended as an introduction for liberal arts majors.

## ENG 465 Shakespeare

Intensive analysis of four or five of the plays, textual and dramatic criticism, sources, and Shakespeare in the theater.

## ENG 466 Milton

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.

## ENG 470 W. B. Yeats

Intensive reading of the poems, plays, essays and autobiography of William Butler Yeats. Discussion.

## ENG 490-590 Independent Reading in Structural

 LinquisticsMr. William Schwab

## ENG 495 Seminar

Intensive reading and research designed particularly for English majors. Topic at the pleasure of the instructor. Enrollment limited.

## ENG 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 to underclassmen. The apprentice should be capable of assuming limited classroom responsibility. Open to teaching or liberal arts majors who have the support of their major departments. Does not satisfy departmental major requirements. ( 2 or 4 units)

ENG 499 Independent Reading
Directed reading and research designed exclusively for senior English majors.

## ENG 500 Advanced Topics in Literature and Language <br> Yeats: Method and Vision <br> Mr. Thomas Fitzsimmons

## ENG 507 Confemporary Drama

Representative plays of major contemporary writers from Ibsen to Albee.

## ENG 510 Literature and Composition

ENG 512 Myth and Literature
The principal Greek and Roman Myths and their uses in classical and postclassical art and literature.

ENG 525 Melville
An intensive study of the works of Herman Melville with primary emphasis on his prose fiction, especially Moby Dick. The course will involve close scrutiny of critical cliches about Melville.

ENG 540 American Writing Now
ENG 551 Chaucer
ENG 565 Shakespeare
ENG 566 Milton
ENG 577 Modern English Grammar
ENG 583 Transformational Grammar
The goals of generative-transformational theory; detailed analysis of the generative-transformational model; pedagogical application.

ENG 590 Literary Criticism
ENG 621 Seminar: American Transcendentalists
ENG 657 Seminar: English Drama to 1590
ENG 660 Seminar: Humanism and Science, 1600-1660
ENG 667 Seminar: The American Trancendentalists
Research in the literature of the Transcendental writers in America.

ENG 665 Eighteenth-Century Studies
ENG 670 Seminar: The nineteenth-Century English Novel
ENG 680 Independent Reading I
ENG 681 Independent Reading II
ENG 690 The Master's Project

## DEPARTMENT OF HISTORY

Professors:
Richard M. Brace, Chairman
Charles W. Akers
George T. Matthews
Clyde B. Sargent
Associate Professors:
Melvin Cherno
Robert C. Howes
W. Patrick Strauss

Assistant Professors:
John Barnard
David Burner
Samuel B. Thomas
Anne H. Tripp
Richard P. Tucker

## Instructor:

Gerald C. Heberle
Leonardas Gerulaitis
The Department of History consists of professional scholars engaged in the study of American, British, European, Russian, Chinese and Indian 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.

Requirements for the Liberal Arts Major in History
Admission to major standing requires successful completion of two Freshman Exploratories, and any two history courses and four semesters of foreign language study. Completing the major requires eight departmental courses exclusive of University Courses. One of the eight must be a 400 -level course. A normal program will involve work in more than one field of history. Each liberal arts major must also complete a fifth and sixth semester of a foreign language, classical or modern. This requirement may be satisfied by either continuing in one language or taking two semesters of a second language.

Requirements for the Secondary Education Teaching Major in History

Admission to major standing requires successful completion of two Freshman Exploratories and any two history courses, two semesters of foreign language study and acceptance by the Department of History, and concurrent acceptance into the Teacher Education Program. Completing the major requires eight departmental courses exclusive of University Courses. The eight courses must include HTS 214-215 and one 400-level history course. The following education courses are also required: ED 244-245, ED 428, ED 455. Students with this major may NOT elect a social science minor.

Requirements for the Secondary Education Teaching Minor in History

Completnig a teaching minor requires twenty credits in history, including HST 214-215. Secondary teaching majors in the social sciences are strongly advised not to elect this minor.

## LIBERAL ARTS MAJOR IN HISTORY

|  | (A typical program) |  |  |
| :--- | :--- | :--- | :--- |
| Semester 1 | Semester 2 | Semester 3 | Semester 4 |
| Freshman Exploratory | Freshman Exploratory | HST |  |
| University Course | University Course | University Course | HST |
| University Course |  |  |  |
| University Course | Univerity Course | Foreign Language | Foreign Language |
| Foreign Language | Foreign Language | Elective | Elective |
|  |  |  |  |
| Semester 5 |  | Semester $\mathbf{6}$ | Semester 7 |
| HST | HST | Semester 8 |  |
| University Course | University Course | HST (400 Level) | HST |
| Forign Language | Foreign Language | Univessity Course | Senior Colloquium |
| Elective | Elective | Elective | Elective |

## SECONDARY TEACHING MAJOR IN HISTORY

| (A typical program) |  |  |  |
| :---: | :---: | :---: | :---: |
| Semester 1 | Semester 2 | Semester 3 | Semester 4 |
| Freshrman Exploratory | Freshman Exploratory |  | HST 215 |
| University Course 054 | University Course | ED 244 | ED 245 |
| University Course | University Course | University Course | University Cours |
| Foreign Language | Foreign Language | Elective | Elective |
| Semester 5 | Semester 6 | Semester | Semester |
|  |  | HST (400 level) | ED 428 |
| University Course | University Course |  |  |
| Elective | Elective | Senior Colloavium |  |

Courses numbered 200-299 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 completed a total of five or more history courses and to have developed a good background in the particular field of the research course through relevant work at the 200-299 and 300-399 levels.

HST 214-2I5 is offered at least every fall and winter semester, and the Department attempts to schedule other introductory courses at frequent, regular intervals. The Department also attempts to make available every semester at least one course at each of the three levels: introductory, advanced, and research.

HST 214, 215 Introduction to American History
An integrated sequence of courses offering an introduction to American history from colonial times to the present.
HST 214 is a survey of American political, economic, and intellectual history from the colonial period to the post-Civil War period.
Prerequisites: Two Freshman Exploratories.
HST 2 I 5 is a survey of modern America: industrial growth, agricultural protest, the experiment with imperialism, domestic reform, and world leadership.
Prerequisites: HST 214 .
HST 234, 235 History of England and British Expansion
An integrated series of courses offering an introduction to English and British history from the Middle Ages to the present.
HST 234 considers the Middle Ages and the rise of parliamentary institutions, the Tudor revolution in government, the Reformation and the rise of Puritanism, the civil wars and the Glorious Revolution, and the culture of the Tudor and Stuart periods.
Prerequisites: Two Freshman Exploratories
HTS 235 starts with the Hanoverian monarchs (since I7I4), analyzing the arrival of industrial production in England and the effects of this change on society and politics, the age of reform in the nineteenth century, the growth and development of the empire, and Britain's role in the world politics of the twentieth century.
Prerequisites: Two Freshman Exploratories

## HST 241, 242 Introduction to European History

An integrated series of courses offering an introduction to the chief epochs of European history from about A.D. I 500 to the present. Emphasis throughout is upon critical analysis of the basic economic, social, and political context of the successive transformations of Europe from late medieval times to the contemporary scene. These courses satisfy the field distribution for Western institutions.
HST 24I (Europe, isoo-r792) studies the emergence of Europe from feudalism into the modern state system, the rise of modern capitalism, and the impact of the new emerging social structure upon intellectual and religious life.

HST 242 (Europe, 1792-present) studies the revolutionary destruction of the old regimes, the establishment of liberal parliamentary democracies, and the rise of totalitarian movements in the present era of global wars.
Prerequisites: Two Freshman Exploratories

## HST 245 Introduction to French Historical Evolution

A study of the basic shifts in the evolution of French governmental policy, starting with the absolutism of the classical period and working up to modern industrial democracy.

## HST 251, 252 Introduction to Russian History

An integrated series of courses offering an introduction to Russian history from earliest times to the present.

HST 25 I is a study of the political, social, and intellectual history of the Russian nation from its origins to 1856.

HST 252 is an analysis of the history of the decline of the Russian monarchy and the rise of the Soviet state, 1856 to the present.
Prerequisites: Two Freshman Exploratories

## HST 308 History of Colonial Society, 1607-1750

The course of European expansion and colonization in the New World, the development of political ideas and institutions in British America, and the economic foundations and social evolution of the thirteen mainland colonies.
Prerequisite: HST 214
HST 309 The Age of the American Revolution, 1750-1790
The structure of colonial society, the effects of British policy on American life, the growth of revolutionary movements, the advent of political independence, the consequences of revolution, and the adoption of the 1787 Constitution.
Prerequisite: HST 2 I4

## HST 312 The Civil War and Reconstruction

Secession, wartime problems of the Union and the Confederacy, principal military campaigns, the Reconstruction Era and the Creation of a new Union, the significance of the Civil War and Reconstruction in American history.
Prerequisite: HST 2 IS

HST 313 American History, 1876-1898
A study of the social, political, and economic history of the United States from the end of Reconstruction to the SpanishAmerican War. Special attention is given to the beginnings of the modern labor movement, the rise of the city, immigration, agrarian protest movements, the businessman's phil-
osophy, and the challenge to laissez faire.
Prerequisite: HST 215

## HST 314 American History, 1898-1928

Political and social histo"y of the United States from the Spanish War to the Great Depression.
Prerequisite: HST 215

## HST 315 American History Since 1928

A study of the United States from the Great Depression to the Cold War.
Prerequisite: HST 215

## HST 317 Topics in American Inteliectual History

A study of major intelle, tual movements, including Puritanism, Transcendentalism, fagmatism, Freudianism, progressive education, and neo-orthodoxy.
Prerequisite: HST 215

## HST 318 Topics in American Social History

A study of important social movements and of the influences bringing social change. Special problems will include evangelism, popular culture, social Darwinism, sexual mores, nativism, and reform movements.
Prerequisite: HST 215

## HST 319 History of the American Negro

An examination of the changing relationship of the Negro, in slavery and in freedom, to American society. It will include analysis of the values, attitudes and institutions which shaped and expressed Negro life.
Prerequisite: HST 215
HST 320, 321 U. S. Diplomatic History
HST 320 is a study of U. S. Diplomatic History from the Revolution to 1890 .
HST 32 I is a study of U. S. Diplomatic History from the Spanish American War to the present.
Prerequisites: HST 214, 215

## HST 325 Medieval Europe

An intensive study of the European Middle Ages from about A.D. 400 to 1300 , with special emphasis on intellectual developments.
Prerequisite: Any 200 level history.

## HST 326 The Renaissance

An intensive study of the European Renaissance period with special emphasis upon the Italian experience.
Prerequisite: Any 200 level history.

## HST 327 The Reformation

An intensive study of European Humanism with special emphasis on the Lowlands, England, and Germany.
Prerequisite: Any 200 level history.

## HST 333 Eighteenth Century England

Critical study of the political, cultural, and intellectual life of England during the eighteenth and early nineteenth centuries. Emphasis is on individual reading, discussion, and special reports.
Prerequisite: HST 234

## HST 334 Victorian and Edwardian England

The political, cultural, and intellectual life of England to the outbreak of World War I. Emphasis is on individual reading, discussion, and special reports.
Prerequisite: HST 234

## HST 335 Twentieth Century Britain

The British adjustment to global wars, the later industrial revolution, mass democracy, and social change. Emphasis is on individual reading, discussion, and special reports.
Prerequisite: HST 234

## HST 341, 342 The Rise of Modern Nationalism

The emergence of European nationalism from the time of the French Revolution, specific nationality and mincrity problems, and the spread of nationalist ideologies to the nonEuropean world.
Prerequisites: Two Freshman Exploratories

## HST 343 Germany Since 1815

A study of the political development of modern Germany as a nation state and the cultural and economic movements connected with German public life.
Prerequisites: Two Freshman Exploratories

## HST 344 Nineteenth Century Radicalism

A parallel history of atheism, philosophical materialism, and socialism. From a critical study of the writings of a variety of poets, philosophers, and propagandists (Shelley, Feuerbach, Marx, Kropotkin), the course will move to a consideration and evaluation of attempts to organize revolutionary movements around anti-theological doctrines (Germany in 1848, France in 1871, Russia in 1905).
Prerequisites: Two Freshman Exploratories

## HST 345 France Since 1815

A study of the political development of modern France as a nation state and the cultural and economic movements connected with French public life. Prerequisites: Two Freshman Exploratories

## HST 351 Topics in Russian History

Intensive study of selected periods and problems in the history of Russia and the Soviet Union. In any one semester the course will be devoted to one of the following topics: (a) Kiev and Muscovy, (b) Imperial Russia, 1700-1917, (c) the Soviet Period, and (d) Russian Intellectual History. Emphasis is on individual reading, student reports, and class discussion. May be taken more than once.
Prerequisites: HST 251-252 or permission of the instructor.

## HST 371 Topics in Chinese History

Intensive analysis of selected periods and problems in the traditional and modern development of China. In any one semester the course will be devoted to one of the following topics: (a) History of the Chinese State, (b) Chinese Intellectual History, and (c) China Since r8oo. Emphasis is on individual readings and special reports. May be taken more than once.
Prerequisite: UC 062

## HST 381 Topics in the History of India

Analysis of basic problems of modern India. In any one semester two or three of the following topics will be considered:
(1) British victory in 18 th century; (2) British India;
(3) liberalism; (4) nationalism; (5) pre-modern Hindu and Muslim Society (a survey); (6) nationalism and tensions.
Prerequisite: UC o66

## HST 391 Directed Readings in History

A program of independent but directed readings designed for junior and senior majors in fields of history in which advanced courses are not available to the student. Offered every semester.
Prerequisite: Permission of the Department.

## HST 411 Senior Seminar in American History

Reading and research in selected topics.
Prerequisites: HST 214-2I5 and major standing.

## HST 431 Senior Seminar in British History

Selected topics for individual research in British cultural, social, and political history, sixteenth to the late nineteenth century.
Prerequisites: Two courses in British history and major standing.

## HST 441 Senior Seminar in European History

Reading and research in selected topics.
Prerequisites: Two courses in European history and major standing.

## HST 481 Seminar in Historiography

Reading and research in topics analyzing the literature of historical inquiry and writing from the Greeks to the present. Prerequisites: Four history courses.

## HST 491 Directed Research in History

A program of directed individual research designed for advanced history majors. May be taken for one or more semesters. May be taken for 4 or 8 credits per semester. Prerequisite: Permission of the Department.

## DEPARTMENT OF MATHEMATICS

Professors:
G. Philip Johnson, Chairman

Louis R. Bragg
John W. Dettman
James H. McKay
Associate Professors:
Donald G. Malm
Harvey A. Smith
Beauregard Stubblefield
Assistant Professors:
Nguyen Phuong Cac
Jogindar S. Ratti
Instructors:
Thomas M. Jenkins
C. Peter Lawes

Virindra M. Sehgal
The Department of Mathematics offers programs of study leading to the degrees of B.A. with major in mathematics, B.A. with secondary teaching major in mathematics, M.A. in mathematics, and M.A.T. in mathematics. In addition, the department offers courses which are required or are used as electives in other programs of the university.

Requirements for the Liberal Arts Major in Mathematics
Nine courses in mathematics (MTH 125, 131, 314, 315 or 316 may not be used to satisfy this requirement. Each student is advised to complete MTH 352); two courses, totalling eight credits, in science; four courses, totalling sixteen credits, in a subject related to mathematics (These courses must be taken in a single department. If they are taken in a science, they may be used to satisfy simultaneously the two-course science requirement). Students planning to do graduate work should take additional mathematics, including several courses numbered in the five-hundreds. Admission to major standing requires four courses in mathematics, among which must be MTH 258 .

## Requirements for the Secondary Teaching Major in

 MatbematicsEight courses in mathematics (MTH I3I, 314, 315, or 316 may not be used to satisfy this requirement. Each student is advised to complete MTH $35^{2}$ ); two courses, totalling eight credits, in science; five or six courses, totalling twenty or twenty-four credits, in a minor. (If the minor is in one department, five courses are required; otherwise, six courses are needed. A group minor of six science courses is recommended, but other minors are permissable. If the minor is in science, the courses may be used to satisfy simultaneously the two-course science requirement) ; four courses in education (ED 244, 245, 428 , and 455). Admission to major standing requires four courses in mathematics, including MTH 258 , and concurrent acceptance into the Teacher Education Program.

## Requirements for the Secondary Teaching Minor in Mathematics

Five courses in mathematics, including MTH 154-155. It is recommended that the other courses be selected from MTH 125,258, $335,36 \mathrm{I}, 373$, and 374.

At least four credits must be earned in reading and research under the course heading MTH 590 . With the present staff, students can satisfy this last requirement in point-set topology, algebraic topology, group theory, functional analysis, differential equations, complex analysis, probability, graph theory, or applied mathematics.

Each student's program is supervised by a committee of three department members. The committee, in addition, passes on the acceptability of the student's performance and sets a comprehensive examination for him near the end of his program.

## MTH 125 Introduction to Probability and Statistics

Elementary set theory, sample spaces, combinatories, random variables, Chebyshev's inequality, Bernoulli trials, binomial distribution, joint distributions, and introduction to statistics. Prerequisites: Three units of high school mathematics.

## MTH 131 Elements of Calculus

The basic concepts, theorems, and applications of calculus, including material on functions of more than one variable and infinite series. Credit cannot be earned for both MTH 13I and I54 or 155.
Prerequisites: Three units of high school mathematics.

## MTH 154-155 Calculus

A comprehensive study of analytic geometry, limits, differentiation and integration for functions of one real variable. Prerequisites: Three years of high school mathematics.

## MTH 258 Advanced Calculus

A study of infinite series, multiple integration, differential calculus of scalar and vector fields, line and surface integrals. Prerequisites: Three years of high school mathematics.

## MTH 259 Advanced Calculus

A study of linear differential equations, Fourier series, and partial differential equations.
Prerequisite: MTH I5s.

## MTH 314 Structure of Number Systems

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.
Prerequisites: Two years of high school mathematics.

## MTH 315 Algebraic Structures

From properties of numbers, algebraic concepts are developed; examples of other algebraic systems are investigated to show the generality and structure of algebra.
Prerequisite: MTH 314.

## MTH 316 Geometric Structures

Selected topics from Euclidean geometry, finite projective and finite affine geometry, analytic geometry, and set theory. Includes an analysis of axiom systems, ruler and compass constructions, equations of lines, circuits, and graph theory. Prerequisites: Two years of high school mathematics.

## MTH 321 Mathematical Statistics

A study of continuous random variables and probability distributions. Includes the law of large numbers, central limit theorem, and many of the common statistical estimates and tests.
Prerequisites: MTH 125 and MTH 131, or MTH 155.

## MTH 322 Mathematical Models for Decision Making

A study of several topics in mathematics which arise in the social sciences. Topics are selected from such areas as difference equations, statistics, stochastic processes, and game theory.
Prerequisites: MTH 125 and MTH 131 , or MTH 155 .

## MTH 335 Introduction to Numerical Analysis

A first course in mathematical methods appropriate to computer work. Topics treated include interpolation, approximation, quadrature, solution of differential equations, and matrix computation.
Prerequisite: MTH 258.

## MTH 351-352 Introduction to Analysis

A careful development of the properties of the real and complex numbers, followed by a rigorous study of sequences and series, limits, continuity, differentiation, and integration. The emphasis will be on functions of one real variable.
Prerequisite: MTH 258.

## MTH 361 Geometry

A group-theoretic and axiomatic study of projective, affine, non-Euclidean, and advanced Euclidean geometry.
Prerequisite: MTH 155 .

## MTH 373 Linear Algebra

Finite-dimensional vector spaces, linear transformations, matrices, linear equations, quadratic forms, and eigenvalues. Prerequisite: MTH 155.

## MTH 374 Modern Algebra

A development of the important properties of algebraic structures, including groups, rings, integral domains and fields. Prerequisite: MTH 373.

## MTH 405 Special Topics

Advanced study of some topic in mathematics. The course usually operates on an independent study of tutorial basis. It may be taken more than once.
Prerequisite: Permission of the department.

## MTH 416 Concepts of Geometry

A development of geometry from an algebraic and metric viewpoint, concentrating on Euclidean geometry. Especially appropriate for M.A.T. candidates.
Prerequisite: Permission of the department.

## MTH 425 Probability

Combinatorial analysis, probability distributions, law of large numbers, random walks, Markov chains, and stochastic processes.

## MTH 453 Multidimensional Analysis

Integrals in En, differential forms, and general Stokes theorem.
Prerequisites: MTH 351 and MTH 373.
MTH 455 Introduction to Complex Variable Theory
Analytic functions, integral theorems, series expansions, and theory of residues.
Prerequisite: MTH 258.

## MTH 461 General Topology

Elementary point-set topology with additional topics chosen from homotopy theory, knot theory, homology theory, or more advanced general topology.
Prerequisite: MTH 352.

## MTH 472 Number Theory

Number-theoretic functions, diophantine equations, congruences, quadratic residues, and continued fractions.

## MTH 490 Independent Study

Library Research on some mathematical topic.
Prerequisite: Permission of the department.

## MTH 514-515 Concepts in Modern Algebra

Designed for M.A.T. candidates. Includes topics from groups, rings, fields, matrices, linear transformations, and vector spaces.
Prerequisite: Permission of the department.

## MTH 517-518 Concepts in Analysis

Designed for M.A.T. candidates. Includes a study of real and complex numbers, functions, limits, differentiation, integration, and infinite series with emphasis on careful proofs of theorems.
Prerequisite: Permission of the department.

## MTH 531 Methods of Applied Mathematics I

Designed primarily for students in engineering and science. 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.
Prerequisite: MTH 259 or permission of the department.

## MTH 532 Methods of Applied Mathematics II

Designed primarily for students in engincering and science. Functions of several variables, vector field theory, partial differential equations, boundary value problems, Fourier series and Fourier integrals.
Prerequisite: MTH 259 or permission of the department.

## MTH 551-552 Real Analysis

Measure theory, Lebesgue integration. Advanced topics taken from differentiation, implicit function theorems, etc.
Prerequisite: MTH 352.

## MTH 555-556 Complex Analysis

The Cauchy Theorem, Laurent expansions, conformal mapping, and Riemann surfaces.
Prerequisite: MTH 352.

## MTH 561-562 Topology

Homotopy and homology groups; cohomology theory. Prerequisites: MTH 374 and 46 I.

## MTH 571-572 Algebra

Groups, rings, fields, modules, and vector spaces.
Prerequisite: MTH 374.

## MTH 590 Directed Reading and Research

Prerequisite: Permission of the department.

## DEPARTMENT OF MODERN LANGUAGES AND LITERATURES

Professors:
Robert Simmons (German), Chairman
Carmine R. Linsalata (Spanish)
Associate Professors:
Alfred DuBruck (French)
Mrs. Helen Kovach (Russian)
Richard Mazzara (French)
Jack R. Moeller (German)
Norman Susskind (French)
Amitendranath Tagore (Chinese)
Assistant Professors:
James O. Bailey, Jr. (Russian)
John W. Barthel (German)
William C. Bryant (Spanish)
Mrs. Dolores Burdick (French)
George H. Engeman, Jr. (Spanish)
Don Iodice (French)
Instructors:
Edward L. Buote (Chinese)
Mrs. Renate Gerulaitis (German)
Jean-Pierre Ponchie (French)
Mrs. Birgitta Vance (Spanish)
Special Instructor:
Mrs. Carmen M. Urla (Spanish)
Assistant Instructors:
Charles Forton (French)
Janet Karpisek (Spanish)
Norbert Noeldechen (German)
Lecturer:
Oleg Mrabar (Russian)
Oakland University, dedicated to developing the highes intellectual and creative potential of its students, holds that the knowledge of foreign languages and literatures is an essential part of this development; indeed, that no one is really educated who has not broken through the barrier of his own language
and come to know the mentality and culture of another people. Thus every student must satisfy a degree requirement in language.

The aim of the modern language curriculum is to help students acquire real competence in the language of a given country and, through the study of its literature, to acquaint them with the cultural background of that country. The major in a modern foreign language and its literature is primarily a humanities major. It prepares the student for professional graduate work and for teaching at the secondary and elementary levels.

Students whose main interests lie in other fields may wish to investigate the advantages of combining competence in a foreign language with that in their field of specialization. This is especially true for students interested in area studies, scientific research, employment with corporations having subsidiaries abroad, government work (the State Department, the United States Information Services, the consular service, the Central Intelligence Agency, economic and technical aid programs abroad, the Peace Corps), in interpreting, missionary work, or journalism. Today the thorough knowledge of a foreign language has as much practical as intellectual validity.

The aural-oral approach is stressed, and all literature courses which carry major credit are conducted in the language concerned, for all courses are designed to improve a student's proficiency in a particular language. There are also sections where the traditional approach is used. All courses meet in small sections. Further, classroom work in all beginning and intermediate sections is fully integrated with regularly scheduled sessions in a modern language laboratory, where students may prepare day-to-day work, catch up in case of absence, review, work ahead, or simply enjoy their linguistic accomplishments. For this latter purpose, recordings of plays, poems, and popular songs are available.

There are several kinds of activities on campus which provide students with opportunities to put their knowledge of foreign language to use: movies, dramatic presentations of selections from modern and classical plays, language clubs, and annual competitions for the prizes given to outstanding students in each of the languages taught.

Students interested in study abroad may get assistance in the department from special advisers who are familiar with the possibilities of study in foreign universities.

The student's selection of a language to study should be a reasoned, not a random choice; this observation holds as well for language taken to fulfill the general requirement as for the language chosen as a major field. The student should elect a language related to his field of interest or to his previous language training. If a student wishes to increase his proficiency in a language studied in high school, he should continue with it. If, however, he wishes to become a specialist in a language in great demand, but not widely taught in high schools, such as Russian, he should not hesitate to change. Students who need advice about these choices should consult with a member of the language department.

Three language tests are administered by the department. All students take the Modern Language Aptitude Test, which is designed to indicate general ability in the aural and grammatical areas. Test results are used in assigning students to the roi- or 1r4-series courses in French, German, and Spanish. Students who enter Oakland with previous study in French, German or Spanish take the Placement Examination. This examination tests aural and grammatical skills in the specific foreign language in order to insure placement in language courses at a level commensurate with the student's ability. Periodically all students enrolled in language courses are required to take Achievement Tests. These serve as a measure of ability at certain given stages during the course of the student's language study.

Prospective majors should have completed, wherever possible, at least two years of a single language in high school. Prospective majors who have not had in high school at least two years of preparation in the language in which they propose to major will be required to take an intensive course at the second-year level during the spring semester following their freshman year so as to prepare them for work at the intermediate level (26I or 27 I ) by the beginning of their sophomore year.

Any student who is registering for a language course beyond 215 and who is a prospective major, but who has not
applied for, or who has not yet been officially admitted to major standing because he has not yet completed 56 semester hours of work, must consult with the department to make sure that his courses are scheduled in the proper sequence. Failure to do so could delay graduation beyond the eighth semester. Prospective majors who have completed 56 semester hours of work including 215 or who have completed 56 semester hours of work and who contemplate registering for any language course beyond 215 must apply for admission to major standing. Failure to do so could delay graduation beyond the eighth semester.

Requirements for the Liberal Arts Major in a Modern Language
The requirement is nine courses in the chosen language and its literatures (except Chinese) beyond 215 . Ordinarily these include two sequences--Composition and Conversation 261-262 and Introduction to Literature 271, 272 (both sequences to be taken concurrently), and five advanced courses at the 300-499 level. Majors are urged to elect courses in other literatures, history, philosophy, art, and linguistics 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.

Admission to major standing requires completion of 56 credit hours, including four courses in a single foreign language: that is, through language 215 , and one course in history relating to the area of language specialization. Exceptions to course requirements will be made for those who show competence in the language of specialization. Students who speak French, German, Russian, or Spanish fluently should in any event consult with the department before electing courses.

Requirements for the Secondary Teaching Major in a Modern Language

The requirement is eight courses in the chosen language and its literatures (except Chinese) beyond 215 . Ordinarily these include two sequences - Composition and Conversation 261-262 and Introduction to Literature 271, 272 (both sequences to be taken concurrently), language 361,365 , and two courses at the 400-499 level. In addition, twenty semester credits in education are required: ED $244-245,428$, and 455.

Requirements for admission to major standing and exceptions
to the language course requirements are the same as those stated above for a liberal arts major, acceptance by the Department of Modern Languages and Literatures, and concurrent acceptance into the Teacher Education Program.
Teacbing Minor in a Modern Lanyuage
The Department does not offer a formal teaching minor, but students with special language backgrounds should consult with the Department if they wish to present a teaching minor. Requirements for an Elementary Teacbing Concentration

The Modern Language Concentration is designed for students who wish to teach a foreign language in the grades or at the junior high school level. This concentration requires four language courses beyond 215 or the equivalent. Ordinarily this includes two sequences: Composition and Conversation 261-262 and Introduction to Literature 271, 272, both sequences to be taken concurrently. Students are strongly urged to take as many additional courses at the 300-499 level as their schedules will permit. For complete details on other requirements, including courses in education, see page 170 .

| (A typical program) |  |  |  |
| :---: | :---: | :---: | :---: |
| Semester 1 | Semester 2 | Semester 3 | Semester 4 |
| Freshman Exploratory | Freshman Exploratory | LANG 261 | LANG 262 |
| LANG 214 | LANG 215 | LANG 271 | LANG 272 |
| University Course | University Course | Elective | Elective |
| University Course | University Course | University Course | University Course |
| Semester 5 | Semester 6 | Semester 7 | Semester |
| Major | Major |  |  |
| Elective | Elective | Elective | Major |
| Elective | Elective | Elective | Elective |
| University Course | University Course | University Course | Senior Colloquium |

## SECONDARY TEACHING MAJOR IN MODERN LANGUAGE ${ }^{1}$ <br> (A typical program)

| Semester 1 | Semester 2 | Semester 3 | Semester 4 |
| :---: | :---: | :---: | :---: |
| Freshman Exploratory | Freshman Exploratory | LANG 261 | LANG 262 |
| LANG 214 | LANG 215 | LANG 271 | LANG 272 |
| University Course 054 | Elective | ED 244 | ED 245 |
| University Course | University Course | University Course | University Course |
| Semester 5 | Semester 6 | Semester 7 | Semester |
| LANG 361 | Major | Major | ED 428 |
| LANG 365 | Elective | Senior Colloquium | ED 455 |
| Elective | Elective | Elective |  |
| University Course | University Course | Elective |  |
| 1 Students who have major will take La second-year course | had any previous la ge 114 in semester 1, 4-215) during the Spri | Ege work in the guage 115 in sem Semester. | ef the proposed , and an intensiv |

## MODERN LANGUAGES (Continued)

CHINESE LANGUAGE AND LITERATURE
CHE 114-115 First Year Chinese (Five credits each)
An introduction to modern Mandarin Chinese (Kuo-yu), emphasizing both conversation and reading.
CHE 214-215 Second Year Chinese (Five credits each)
Continued study of Kuo-yu with increasing emphasis on reading and composition. May be conducted as a tutorial.
Prerequisites: CHE II4-1IS or permission of the instructor.

## CHE 271-272 Introduction to Chinese Literature

Introductory study of various genres of Chinese literature, classical or modern. May be conducted as a tutorial. Prerequisites: CHE 215 and permission of the instructor.

## CHE 370 Selections from Chinese Literature

Advanced study of various genres of Chinese literature, classical or modern. May be conducted as a tutorial, and may be repeated for credit.
Prerequisites: CHE 271-272 or permission of the instructor.

## FRENCH LANGUAGE AND LITERATURE

FRH 101-102 Elementary Reading in French
Designed to help students acquire a reading knowledge of French. Elements of grammar, extensive reading of graded texts. Admission contingent upon departmental testing. To be followed by FRH 201-202. Not open to prospective majors.

## FRH 114-115 First Year French (Five 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 Intermediate Reading in French

Continued development of reading skill, extensive readings in cultural and literary texts, and unedited materials of various kinds.
Prerequisite: 102 or placement by department testing. Not open to prospective majors.

## MODERN LANGUAGES (Continued)

FRH 214-215 Second Year French (Five 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.
Prerequsite: FRH ifs or an appropriate placement examination score.

## FRH 251 French Civilization

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.
Prerequisite: FRH 215 or an appropriate placement examination score.

## FRH 261-262 French Composition and 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.
Prerequisite: FRH 215 , or an appropriate placement examination score. Especially qualified freshmen may be admitted.
FRH 271, 272 Introduction to French Literature
The study of masterpieces of French literature. Classwork and oral and written reports in French.
Prerequisite: FRH 215 , or an appropriate placement examination score. Especially qualified freshmen may be admitted.
FRH 285, 286 Main Currents of French Thought and Literature Man and society as seen in the works of representative authors from the Renaissance to the present. Lectures and readings in English. Not open to French majors.
Prerequisite: Sophomore standing or permission of the instructor.
FRH 285 covers the period from the Renaissance to the 19 th century. FRH 286 deals with the 19th and 20 th centuries.

## FRH 361 Advanced Composition and Conversation

Intensive oral work designed to perfect conversational ability, with emphasis on phonetics and diction. Extensive written

## MODERN LANGUAGES (Continued)

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 262.

## FRH 365 Applied Linguistics of French

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 French. Required for secondary teaching majors. Prerequisite: FRH 262 or permission of the instructor.

## FRH 421, 422 Seventeenth Century French Literature

FRH 42 I deals with the development and character of French classicism: Descartes, Pascal, the novels of D'Urfé and Mme de La Fayette, 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 and are offered in alternate years. Prerequisite: FRH 272.

## FRH 431, 432 Eighteenth Century French Literature

FRH 43I 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 Pbilosophes. Primarily a study of Montesquieu, Diderot, and Rousseau, including the origins of Romanticism. These courses are conducted in French and are offered in alternate years. Prerequisite: FRH 272.

## FRH 441, 442 Nineteenth Century French Literature

FRH 44I 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.

## MODERN LANGUAGES (Continued)

FRH 442 deals with the realistic novel, review of the Parnassian poets and the problem play, and the esthetics 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 and offered in alternate years.
Prerequisite: FRH 272.

## FRH 451 Twentieth Century French Novel

Developments in the novel since the turn of the century. Primarily a study of Proust, Gide, Mauriac, Malraux, Camus, Sartre, and representative authors of the new school. Conducted in French and offered in alternate years. Prerequisite: FRH 272.

## FRH 452 Twentieth Century French Theatre

Drama since the Théatre 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 Ionesco and Beckett. Conducted in French and offered in alternate years.
Prerequisite: FRH 272.

## FRH 453 Modern French Poetry

Reading and discussion of French poetry from symbolism to the present. Conducted in French.
Prerequisite: FRH 272.
FRH 480 Seminar in French Literature
Study of individual authors, selected themes, or critical problems.
Prerequisites: Major standing in French and permission of the instructor.

## FRH 490 Independent Reading and Research

Directed individual research and reading designed for advanced French majors. May be taken for 4 or 8 credits per semester and may be taken for one or more semesters. Prerequisite: Permission of the Department.

## MODERN LANGUAGES (Continued)

## FRH 505-506 Composition and Conversation

Intensive work in oral and written expression. (NDEA Institute: 8 credits granted upon completion of 506 .)

## FRH 510 French Stylistics (4 credits)

Theory and practice of French stylistics.
Prerequisite: French 361 (or equivalent) or permission of the department.

## FRH 580 Graduate Seminar

Study of individual authors, selected themes, or critical problems.
Prerequisites: Graduate standing in French and permission of the instructor.

## german language and literature <br> GRM 101-102 Elementary Reading in German

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 (Five 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.

## GRM 201-202 Intermediate Reading in German

Continued development of reading skill, extensive readings in cultural and literary texts, and unedited materials of various kinds.
Prerequisite: GRM 102 or placement by departmental testing. Not open to prospective majors.

## GRM 214-215 Second Year German (Five credits each)

Review of grammar essentials and more intensive practice in developing speaking and writing skills, combined with reading of literary and cultural texts.
Prerequisite: GRM ins or an appropriate placement examination score.

## MODERN LANGUAGES (Continued)

## GRM 261-262 German Composition and 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.
Prerequisite: GRM 215 or an appropriate placement examination score.
Especially qualified freshmen may be admitted.
GRM 271, 272 Introduction to German Literature
Masterpieces of German literature. Classwork and oral and written reports in German.
Prerequisites: GRM 215 or an appropriate placement examination score.
Especially qualified freshmen may be admitted.

## GRM 285 Main Currents of German Thought and Literature

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. Not open to German majors.
Offered in alternate years.
Prerequisite: Sophomore standing or permission of the instructor.

## GRM 361 Advanced Composition and 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 German authors. Strongly recommended for all students, especially those planning to teach at the elementary level. Required for secondary teaching majors.
Prerequisite: GRM 262

## GRM 365 Applied Linguistics of German

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.

## MODERN LANGUAGES (Continued)

Required for secondary teaching majors.
Prerequisite: 262 or permission of instructor.
GRM 421, 422 The Age of Goethe and Goethe's Faust
GRM 42 I 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 272.

## GRM 431 German Romanticism and Realism

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 272
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 272

## GRM 451 Modern Prose Fiction

A survey of novels and Novellen from World War I to the present, stressing developments in these genres since World War II. Conducted in German and offered in alternate years.

## GRM 480 Germanistisches Proseminar

Intensive investigation of some special aspects of German literature, stressing research and independent study.
Prerequisites: Major standing in German and permission of the instructor.

## GRM 490 Independent Reading and Research

Directed individual research and reading designed for advanced German majors. May be taken for 4 to 8 credits per semester and may be taken for one or more semesters. Prerequisite: Permission of the Department.

## MODERN LANGUAGES (Continued)

## russian language and literature

## RUS 114-115 First Year Russian (Five 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 214-215 Second Year Russian (Five 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 irs or evidence of proficiency and permission of the Department.

## RUS 261-262 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 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 271, 272 Introduction to Russian Literature

The study of masterpieces of Russian literature. Classwork and oral and written reports in Russian.
Prerequisites: RUS 215 or evidence of proficiency and permission of the Department. Especially qualified freshmen may be admitted.

## RUS 285, 286 Survey of Russian Literature

Russian 285 covers Russian literature from the beginning to 1880 and emphasizes the realistic novel. Russian 286 deals with the period from r880 to the present and mainly is concerned with Soviet literature. Lectures and readings in English. Either course may be taken independently of the other. Not open to Russian majors.
Prerequisite: Sophomore standing or permission of the instructor.

## MODERN LANGUAGES (Confinued)

RUS 361-362 Advanced Composifion and 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 361 is recommended for elementary teaching majors and is required for secondary teaching majors. RUS $361-362$ is required for Russian majors in Liberal Arts.
Prerequisite: RUS 262

## RUS 365 Applied Linguistics of Russian

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 Russian. Required for secondary teaching majors. Prerequisite: RUS 262 or permission of instructor.

## RUS 426 Russian Poetry of the First Half of the Nineteenth Century

The major Russian poets from r800 to 1840: Zhukovsky, Batyushkov, Delvig, Baratynsky, Yazykov and Lermontov. Conducted in Russian and offered in alternate years.
Prerequisite: RUS 272

## RUS 427 Russian Poetry of the Second Half of the Nineteenth Century

Study of poetry from 1840 to symbolism with special emphasis on Tyutchev, Fet, A. Tolstoy, and Nekrasov. Conducted in Russian and offered in alternate years.
Prerequisite: RUS 272

## RUS 428 Pushkin

Study of Pushkin's poetry, prose, and drama.
Conducted in Russian and offered in alternate years.
Prerequisite: RUS 272

## RUS 432 Gogol

Study of Gogol's works and his place in Russian literature. Conducted in Russian and offered in alternate years.
Prerequisite: RUS

## MODERN LANGUAGES (Continued)

## RUS 433 Russian Drama

Survey of Russian drama from the 17 th century to the present.
Conducted in Russian and offered in alternate years. Prerequisite: RUS 272

## RUS 434 Russian Realism

Russian realistic novel from 1840 to 1880 . Selections from the major novelists.
Conducted in Russian and offered in alternate years.
Prerequisite: RUS 272

## RUS 435 Chekhov

Devoted mainly to Chekhov's prose but includes other prose writers of the time such as Garshin, Korolenko, Gorky, Bunin, Kuprin, and Andreev.
Conducted in Russian and offered in alternate years.
Prerequisite: RUS $27^{2}$

## RUS 441 Tolstoy

Study of Tolstoy's literary and moral development as reflected in his major works.
Conducted in Russian and offered in alternate years.
Prerequisite: RUS 272

## RUS 442 Dostoevsky

Study of Dostoevsky's evolution as a writer and thinker. Conducted in Russian and offered in alternate years.
Prerequisite: RUS 272

## RUS 448 The Silver Age

A survey of Russian Symbolism, Acmeism, and Futurism with an emphasis on the poets of the Silver Age.
Conducted in Russian and offered in alternate years.
Prerequisite: RUS 272

## RUS 450 Soviet Literature

A survey of the main trends of Soviet literature from 1917 to the present.
Conducted in Russian and offered in alternate years.
Prerequisite: RUS 272

## MODERN LANGUAGES (Continued)

## RUS 480 Seminar in Russian Literature

Intensive investigation of some aspect of Russian literature. Prerequisites: Major standing in Russian and permission of the instructor.

## RUS 490 Independent Reading and Research

Directed individual research and reading designed for advanced Russian majors. May be taken for 4 or 8 credits per semester and may be taken for one or more semesters.
Prerequisite: Permission of the Department.

## SPANISH LANGUAGE AND LITERATURE <br> SPN 101-102 Elementary Reading in Spanish

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 (Five 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

Continued development of reading skill, extensive readings in cultural and literary texts, and unedited materials of various kinds. Prerequisite: SPN 102 or placement by departmental testing. Not open to prospective majors.

## SPN 214-215 Second Year Spanish (Five 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.
Prerequisite: SPN irs or appropriate score on a placement examination.

## MODERN LANGUAGES (Continued)

## SPN 261-262 Spanish Composition and Conversation

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 translation. Techniques of textual analysis and exposition are introduced.
Conducted primarily in Spanish.
Prerequisite: SPN 215, or an appropriate score on a placement examination. Especially qualified freshmen may be admitted.

## SPN 271, 272 Introduction to Spanish Literature

The study of masterpieces of Spanish literature. Classwork and oral and written reports in Spanish.

Prerequisite: SPN 215, or an appropriate score on a placement examination. Especially qualified freshmen may be admitted.

SPN 285, 286 Survey of Spanish and 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. Not open to Spanish majors.
Prerequisite: Sophomore standing or permission of the instructor.

## SPN 361 Advanced Composition and 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 all students, especially those planning to teach at the elementary level. Required for secondary teaching majors.
Prerequisite: SPN 262

## MODERN LANGUAGES (Continued)

## 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.
Prerequisite: 262 or permission of instructor.

## SPN 411 Cervantes

Detailed study of the literary value and philosophical connotations of the Quijote, the Novelas Ejemplares and dramatic works, especially the Entromeses. Conducted in Spanish and offered in alternate years.
Prerequisite: SPN 272

## SPN 421 Spanish Novel of the Golden Age

A detailed study of the picaresque novel, the pastoral novel of Montemayor, and selections from other prose writers, including Velez de Guevara and Zayas. Conducted in Spanish and offered in alternate years.
Prerequisite: SPN 272

## SPN 422, 423 Spanish Drama of the Golden Age

SPN 422 places special emphasis on the role of Lope de Vega in the development of Spanish drama. Includes, Tirso de Molina and the Don Juan legend, Ruiz de Alarcon, Guillen de Castro, and others. Conducted in Spanish.
SPN 423 places special emphasis on Calderon. Includes Rojas Zorrila, Moreto, Quinones de Benavente, and selections from the autos sacramentales. Conducted in Spanish and offered in alternate years.
Prerequisite: SPN 272

## SPN 431 The Romantic Movement in Spanish Literature

Developments in drama, poetry, and the novel. Includes Martinez de la Rosa, Hartzenbusch, Duque de Rivas, Espronceda, Zorrilla, Fernandez y Gonzalez, Gil y Carrasco, and others. Conducted in Spanish and offered in alternate years. Prerequisite: SPN ${ }^{\mathbf{2 7}}{ }^{2}$

## MODERN LANGUAGES (Continued)

## SPN 432 Spanish Realism and Naturalism

Emphasis on novelists such as Fernan Caballero, Galdos, Pardo Bazan, Palacio Valdes. Selections from principal poets and dramatists, including Becquer, Echegaray, and others. Conducted in Spanish and offered in alternate years.
Prerequisite: SPN 272

## SPN 441 The Generation of 1898

New modes of thought and aspirations as reflected in the works of novelists, poets, and thinkers such as Baroja, Azorin, Valle-Inclan, Perez de Ayala, Unamuno, Ortega y Gasset, Maeztu, and M. Machado. Conducted in Spanish. Prerequisite: SPN 272

## SPN 451 The Modernista Movement in Spanish-American Literature

Principally a study of the prose and poetry of Ruben Dario and his influence. Selections from authors such as Gutierrez Najera, Marti, Rodo, Santos Chocano, and Amado Nerva. Conducted in Spanish and offered in alternate years. Prerequisite: SPN 272

## SPN 461 Modern Spanish-American Literature

Selected works of Spanish-American authors after the "modernista" movement, including Jose Vasconcelos, Alfonso Reyes, Horacio Quiroga, Romulo Gallegos, Gabriela Mistral, and Pablo Neruda. Conducted in Spanish and offered in alternate years.
Prerequisite: SPN 272

## SPN 471 The Contemporary Spanish Novel

Esthetic innovations and themes in the works of authors such as Cela, Zunzunequi, Laforet, Gironella, Goytisolo, and others. Conducted in Spanish and offered in alternate years. Prerequisite: SPN 272

## 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.

## MODERN LANGUAGES (Continued)

## SPN 490 Independent Reading and Research

Directed individual research and reading designed for advanced Spanish majors. May be taken for 4 or 8 credits per semester and may be taken for one or more semesters.
Prerequisite: Permission of the Department.

## MODERN LANGUAGE

## ML 500 The Teaching of Modern Languages I

An introduction to the use of techniques of applied linguistics in the teaching of modern foreign languages. Special emphasis on the problems of developing speaking and writing skills, teaching of structure, and the construction of testing devices. Presupposes a major concentration in a foreign language and previous teaching experience at the junior high or high school levels.
Prerequisite: Permission of the department.

## ML 501 The Teaching of Modern Languages II

An advanced-level, linguistically-oriented course with emphasis on the preparation of materials for intermediate and advanced classes. Presupposes a major concentration in a foreign language and previous teaching experience at the junior high or high school levels.
Prerequisite: One of the following: Education 428 (Teaching of Modern Language), Modern Language soo, participation in an N.D.E.A. Institute, or permission of the department.


## DEPARTMENT OF MUSIC

Professors:
Walter S. Collins
Sixten Ehrling
Associate Professor:
Charles Heffernan
Assistant Professors:
David DiChiera, Acting Chairman
Arthur M. Daniels
Wilbur Kent

## Instructors:

Robert Facko
Jon H. Appleton
Assistant Instructor:
Alice Engram
The Department of Music offers three major programs: (1) The major in music theory and composition is designed to prepare the student for graduate study in theory and composition, for college teaching, composing, arranging, and conducting. (2) The major in music history and literature is designed to prepare the student for graduate work in musicology, for college teaching, criticism and writing about music. (3) The teaching major in music is designed to prepare the student for a career in teaching or supervising music in the elementary school or for teaching music in the secondary school. Michigan certification for both elementary and secondary teaching may be earned in this program.

Music is also a part of the extracurricular life at Oakland. There are performance groups of various kinds on campus, and there is a lecture-concert series which brings outstanding performers to the Oakland community. During the summer the University becomes the second home of the Detroit Symphony Orchestra, which performs for the Meadow Brook Music Festival. In addition, Oakland's proximity to Detroit allows students to hear, at reduced prices, many great performing artists and to attend a wide variety of musical events in the city.

Requirements For the Liberal Arts Major In Music Theory and Composition

Minimal course requirements beyond UC 049 are 211, 212, $311,312,411,412,492,493,321,322$. German is the recommended foreign language for this major. Admission to major standing requires Freshman Exploratories, UC 049, MUS 211, MUS 212.

Each major must also stisfy the following three requirements: (i) Demonstration of major proficiency in some solo performing medium. Students should discuss with the Music Department the methods for satisfying this requirement at the time of their registration in the University. (2) Demonstration of a minor proficiency in some solo performing medium. A description of this requirement is available from the Department; it may be satisfied by passing a qualifying examination administered by the Department. All prospective music majors are urged to acquire as much keyboard facility as possible before entering the University. (3) Participation for 7 semesters in a recognized performing group at the University. The Department reserves the right to limit the number of credits given for this activity.

## Requirements for the Liberal Arts Major <br> In Music History and Literature

Minimal course requirements beyond UC 049 are 211, 212, 3 II, 3 I2, 4 II , 412, $32 \mathrm{I}, 322,49 \mathrm{O}$, 491. All other requirements are the same as those for the major in music theory and composition.

## Requirements for the Teaching Major in Music

Students in this major will normally be certified for both elementary and secondary teaching. Minimal course requirements beyond UC 049 are $211,212,311,312,411,412,321$, 322, 351 , 352. The following education courses are required: ED 244-245, ED 428, and ED 455. Admission to major standing requires acceptance by the Department of Music and concurrent acceptance into the Teacher Education Program. All other requirements for the major in music theory and composition also apply to this major.

| AL ARTS MAJOR IN MUSIC |  |  |  |
| :---: | :---: | :---: | :---: |
| Semester 1 | Semester 2 | Semester 3 | Semester 4 |
| Freshman Exploratory | Freshman Exploratory | MUS 311 | MUS 312 |
| MUS 211 | MUS 212 | MUS 321 | MUS 322 |
| UC 049 | UC | UC | UC |
| Foreign Language | Foreign Language | Foreign Language | Foreign Language |
| Semester 5 | Semester 6 | Semester 7 | Semester 8 |
| MUS 411 | MUS 412 | MUS (490 or 492) | Sr. Colloquium |
| UC | UC | UC | Elective |
| UC | UC | Elective | Elective |
| Elective | Elective | Elective |  |

## TEACHING MAJOR IN MUSIC (A typical program)

| Semester 1 | Semester 2 | Semester 3 | Semester 4 |
| :--- | :--- | :--- | :--- |
| MUS 211 | MUS 212 | MUS 311 | MUS 312 |
| Freshman | Exploratory | Freshman | Exploratory MUS 321 |
| UC 049 | UC | MUS 322 |  |
| Foreign Language | Foreign Language | UC | ED 244 |
| Semester 5 | Semester 6 | Semester 7 | Se |
| MUS 411 | MUS 412 | MUS 352 | Semester 8 |
| ED 245 | MUS 351 | Sr. Colloquium | ED 428 |
| UC | UC | ELective |  |
| UC | UC | Elective |  |

MUS 101 University Chorus (one credit)
MUS 102 Oakland Singers (one credit)
MUS 103 Collegium Musicum (one credit)
MUS 105 Opera Workshop (one credit)
MUS 106 University Orchestra (one credit)
MUS 111 Beginning Musicianship
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 nonmusic majors.
MUS $149 \begin{aligned} & \text { Music as an Art and as an Elementary School } \\ & \text { Subject }\end{aligned}$
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. Normally offered fall and winter semesters.

## MUS 160 Voice*

MUS 161 Piano*

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MUS 162 Organ*
MUS 164 Violin*
MUS 168 Flute*
MUS 175 Tuba*
MUS 177 Percussion*
MUS 211-212-311-312-411-412 Music Theory (three credits each)
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A six semester sequence required of all music majors. Included are such topics as the harmony of the common-practice period, keyboard harmony, modal and tonal counterpoint, form and analysis, and elementary orchestration. Laboratory sessions will be provided to supplement classroom drill in melodic, harmonic, and contrapuntal dictation, and in sightsinging. Sequence begins each Fall semester.
Prerequisites: Minimum keyboard proficiency and permission of the instructor.

## MUS 321 Music History and Literature to 1750

History and literature of music through the Baroque Period. Designed primarily for music majors. Offered each Fall semester.
Prerequisites: UC 049 and permission of the instructor.

## MUS 322 Music History and Literature Since 1750

History and literature of music from 1750 to the present. Offered each Winter semester. Designed primarily for the music majors.
Prerequisites: UC 049 and permission of the instructor.

## MUS 331 Opera and Music Drama

A study of music drama from the lyric drama of the ancient Greeks to the present. Suggested as an elective for nonmusic majors.
Prerequisite: UC 049

## MUS 332 Symphonic Music

A study of symphonic music from the pre-classic compositions of C.P.E. Bach to the present. Suggested as an elective for nonmusic majors.
Prerequisite: UC 049

## 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 the nonmusic major.
Prerequisites: UC 049 and 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 the nonmusic major. Prerequisites: UC 049 and permission of the instructor.

## MUS 351-352 Vocal and Choral Techniques

The methods and materials of singing in groups and individually. Includes singing lessons as well as the subject matter contained in courses usually called choral conducting, choral literature, vocal methods, and vocal materials. Sequence begins each summer semester.
Prerequisites: MUS 312 and MUS 322.

## MUS 371-372 Keyboard Technique

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 Music Department at the time of their first registration in the University. Normally offered each semester.
Prerequisite: Permission of the instructor.

## MUS 490 Introduction to Bibliography

A course designed primarily for the Music History and Literature major. A rigorous and systematic introduction to basic research materials and methodology in musicology.
Prerequisite: MUS 412

## MUS 491 Directed Research in Music History

A program of directed individual reading and research designed for advanced music history majors.
Prerequisites: Permission of the instructor and MUS 412.
MUS 492-493 Advanced Music Theory and Composition
Primarily for the Theory-Composition major. Includes studies in canon and fugue, twentieth century techniques, advanced orchestration, free composition, and speculative theory. Prerequisite: MUS 412

## DEPARTMENT OF PHILOSOPHY

Professor:
James C. Haden, Chairman
Associate Professor:
Richard J. Burke
Assistant Professor:
Alfred Lessing

## Instructor:

Richard W. Brooks
Henry Rosement

## Lecturer:

Charles E. Morton
Requirements for the Liberal Arts Major in Pbilosophy
Nine departmental courses are required, including PHL 201, 204, 205, 206, and 490. The requirement of PHL 201 may be waived upon advance application to the departmental chairman. Knowledge beyond the introductory level is required in at least one area outside philosophy. This requirement is normally fulfilled by electing four or more courses in the same field, exclusive of University courses, chosen by the student in consultation with his departmental adviser. In conjunction with PHL 490 each student must pass an oral examination on the work of one major philosopher. Each student will make his own choice of the philosopher on whom he wishes to be examined and submit the choice for approval at the beginning of the seventh semester, together with a reading list of works by and about the man chosen. Admission to major standing requires two Freshman Exploratories, the social science or the art and music sequence, and PHL 201 (or PHL 204).

## PHL 201 Introduction to Philosophical Thinking

Several problems within the scope of philosophical inquiry are intensively examined. Different problems are chosen each year, but typical examples are: the nature and grounds of political obligation; the possibility of demonstrating God's existence; grounds for belief in the evidence of the senses. The emphasis is on active critical and constructive philosophical thinking on the part of the students. Spring Semester. Prerequisites: Two Freshman Exploratories

## PHL 204, 205, 206 Introduction to Systematic Philosophy

The development of systematic philosophical thought in the Western world from the age of pre-philosophical mythical and religious thinking in the Mediterranean region to the present time. The three terms are as follows: PHL 204, the classical Greco-Roman period, from Homer to Boethius (Fall Semester) ; PHL 205, the religious period, from St. Augustine to Leibniz (Winter Semester); PHL 206, the scientific period, from Francis Bacon to the Present (Spring Semester). Each term may be taken separately, although together they present a continuous development. Extensive readings in original writings of major philosophers.
Prerequisites: Two Freshman Exploratories

## PHL 250 Philosophies and Religions of Asia (Phl and Rel 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 Ch'an or Zen), and will deal with both the ancient traditions and some modern developments.
Prerequisite: One course in philosophy or consent of instructor.

## PHL 290 Special Readings

Intensive study of a single major philosophical work of a restricted philosophical topic, conducted as a tutorial. Offered on demand, and may be taken for credit. Two credits.

## PHL 301, 302 Introduction to Logic

The first semester deals with traditional theories of logic and language; concentrating on those of Aristotle and J. S. Mill. The second semester deals with the theories and problems of the last hundred years, including the development of a degree of facility with symbolic techniques.

Prerequisite: Two Freshman Exploratories or permission of instructor.

## PHL 317 Ethics

The questions of right action, of duty and obligation, and of the best life for man are discussed, with the aid of readings in major examples of ethical analysis, from the time of the ancient Greeks to the present. An effort is made to evaluate conflicting ethical theories.
Prerequisites: Two Freshman Exploratories. PHL 201 is recommended.

## PHL 319 Esthetics

The significance of the literary, visual, and musical arts for a philosophical understanding of man is developed through inquiry into the factors entering into the creating and the intelligent judgment of a work of art. Readings in works such as Aristotle's Poetics, Kant's Critique of Estbetic Judgment, R. G. Collingwood's Principles of Art, and Dewey's Art as Experience, plus a constant effort to keep philosophical principles in relation to actual art works.
Prerequisites: Two Freshman Exploratories, and UC 047 or UC 049. PHL 201 is recommended.

## PHL 321 Theories of Justice, Power, and Freedom

The meanings of these three central concepts in political philosophy, together 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 such as that of segregation. Fall Semester. Prerequisites: Two Freshman Exploratories

## PHL 325 Philosophy of Religion

An examination of various approaches to religious faith and worship in the Western world, from the traditional arguments for a benevolent Deity to the theories of modern psychologists and anthropologists. Several of the great classics of religious literature-for example, the Book of Job, St. Augustine's Confessions, Pascal's Pensees-are read and discussed. The approaches of present-day existentialism and positivism to religion are considered. The course does not strive to produce or confirm any particular point of view other than that of enlightened interest.
Prerequisites: Two Freshman Exploratories. PHL 201 is recommended.

## PHL 329 Philosophy of Science

A study of philosophical problems related to scientific and mathematical thinking, such as determinism and indeterminism in physical events, the relation of theory to observation, and the ontological status of scientific entities. The course may be presented with attention to the historical development of science and specific case histories.
Prerequisite: UC 086 or 087 , or one departmental course in the natural or social sciences.

## PHL 341 Process Philosophy

Since Hegel and Darwin, some of the greatest modern thinkers have constructed syntheses in which both nature and mind are understood as aspects of an all-inclusive evolutionary process. This course concentrates on three of these syntheses: those of Henri Bergson, John Dewey, and Alfred North Whitehead.
Prerequisites: Two Freshman Exploratories. PHL 201 or 206 is recommended.

## PHL 355 Existentialism

A study of the several types of modern existentialist philosophy, on the basis of readings in the works of Kierkegaard, Sartre, Camus, Jaspers, Heidegger, and Marcel. An attempt is made to remove misconceptions concerning existentialism, and to discover its positive contributions.
Prerequisites: Two Freshman Exploratories. PHL 201 or 206 is recommended.

## PHL 357 Contemporary Analytic Philosophy

A study of the main forms of twentieth century analytical movements, beginning with the work of G. E. Moore, and with special emphasis on logical empiricism and linguistic analysis.
Prerequisites: Two Freshman Exploratories. PHL 20r or 206 is recommended.

## PHL 367 Ancient and Medieval Philosophers

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. Winter Semester.
Prerequisite: PHL 204 or permission of the instructor.

## PHL 383 Modern Philosophers

An intensive study of the works of one major philosopher of the period from 1600 to the present. The specific philosopher to be considered will vary from year to year. May be repeated for credit. Fall Semester.
Prerequisite: PHL 206 or permission of the instructor.

## PHL 490 Philosophical Research

The goal of the study of philosophy is the independent practice of philosophical inquiry. In this final phase of the program for philosophy majors, students have an opportunity to formulate philosophical questions and to progress toward carefully considered solutions. The research is carried on in consultation with and under the supervision of a staff member, and the results are embodied in a written paper. Prerequisite: Major standing in philosophy.

## DEPARTMENT OF PHYSICS

Professors:
Ralph C. Mobley, Chairman
Robert M. Williamson
Associate Professor:
John M. McKinley
Assistant Professors:
Paul A. Tipler
Libor J. Velinsky
Instructor:
Bruce R. Danner
The Department of Physics offers a comprehensive program in basic physics leading to the B.A. degree. The curriculum provides a solid foundation in both classical and modern physics. Physics majors with a B.A. degree are qualified for graduate work in physics and related subjects, for research positions in government and industrial laboratories, or with additional courses in education, for secondary school teaching.

Requirements for the Liberal Arts Major in Pbysics
(a) PHY 151, 152, $158,317,318,331,341,347,348,361$, 371, 38 I ; seven courses, five laboratories; 37 credits
(b) CHM II4, IIS, II7; two courses, one laboratory; 8 credits
(c) MTH 154, 155, 258, plus one more; four courses; 16 credits
(d) Seven University Courses; 28 credits
(e) Completion of a second semester language course or placement beyond this level.
(f) Two free electives; 8 credits
(g) 124 credits

Admission to major standing requires 14 credits in physics, 8 credits in chemistry, and 8 credits in mathematics.

Requirements for the Secondary Teaching Major in Physics
(a) PHY 151, 152, 5 5 $, 317,33 \mathrm{I}, 34 \mathrm{I}, 347,348$, 361, 37 I , 38 r ; seven courses, four laboratories; 35 credits
(b) CHM II4, irs, inf; two courses, one laboratory; 8 credits
(c) MTH 154, 155, 258 plus one more: four courses; 16 credits
(d) Seven general education courses; 28 credits
(e) ED 244, 245, 428, 455; four courses; 20 credits
(f) Completion of a second semester language course or placement beyond this level.
(g) Two free electives; 8 credits
(h) 124 hours

Admission to major standing requires 14 credits in physics, 8 credits in chemistry, and 8 credits in mathematics, and acceptance by the teacher education program.

Teaching Minor in Pbysics
Twenty credits in Physics are required.

## LIBERAL ARTS MAJOR IN PHYSICS <br> (Two and two-thirds year program) $\ddagger$

| Semester 1 | Semester 2 | Semester 3 | Semester 4 |
| :---: | :---: | :---: | :---: |
| Freshman Exploratory | Freshman Exploratory | PHY 371 | PHY 317 |
| PHY 151 | PHY 152 | MTH 258 | PHY 331 |
| CHM 117 | PHY 158 | University Course | PHY 351 |
| MTH 154 | CHM 115 | University Course | Uriversity Course |
| CHM 114 | MTH 155 |  | University Course |
| Semester 5 | Semester 6 | Semester 7 | Semester 8 |
| PHY 341 | PHY 348 | *PHY 400 | *PHY 400 |
| PHY 347 | PHY 318 | *PHY 421 | *PHY 490 |
| PHY 381 | Language | *PHY 472 | *PHY 482 |
| MTH 259 | Liniversity Course | Senior Colloquium | *Elective |
| Language | *PHY 465 | Elective | Elective |
| $\ddagger$ See the Physics Dep above program. NOT in each of the first | artment for four year E: programs can be ar two semesters. | programs and the ranged so as to allow | iations possible in two University Co |
| *These courses are n graduate work. | ot required, but they | are suggested for | ents planning |

## SECONDARY TEACHING MAJOR IN PHYSICS <br> (Two and two-thirds year program) $\ddagger$

| Semester 1 | Semester 2 | Semester 3 | Semester 4 |
| :---: | :---: | :---: | :---: |
| Freshman Exploratory | Freshman Exploratory | PHY 371 | ED 244 |
| PHY 151 | PHY 152 | MTH 258 | PHY 317 |
| CHM 114 | PHY 158 | UC 054 | PHY 331 |
| CHM 117 | CHM 115 | University Course | PHY 361 |
| MTH 154 | MTH 155 |  | University Course |
| Semester 5 | Semester 6 | Semester 7 | Semester 8 |
| ED 245 | *PHY 318 | *PHY 400 | ED 428 |
| PHY 341 | PHY 348 | *PHY 421 | ED 455 |
| PHY 347 | Language | Senior Colloquium |  |
| PHY 381 | Math | Elective |  |
| Language | University Course | Elective |  |
| $\ddagger$ See the Physics Department for four year programs and the variations possible in the above program. NOTE: programs can be arranged so as to allow two University Courses in each of the first two semesters. |  |  |  |
| *These courses are not | required. |  |  |

## PHY 151-152 Introductory Physics (four credits each)

Mechanics, electricity and magnetism, wave motion, and optics for science, mathematics, and engineering science students.
Replaces PHY 25r-252.
Corequisite: MTH rs4
PHY 158 Introductory Physics Laboratory (2 credits)
Prerequisite: PHY IfI

## PHY 253 Introductory Physics (2 credits)

Optics and introductory thermodynamics for engineering science students.
Prerequisites: PHY 152, MTH 155

## PHY 317-318 Intermediate Laboratory (2 credits each)

Optics, atomic physics, and nuclear physics experiments, shop techniques, vacuum systems, error analysis.
Prerequisite: PHY 158
PHY 331 Optics (three credits)
Geometrical optics, optical instruments, wave theory of reflection refraction, interference, diffraction, and polarization of light.
Prerequisites: PHY 152, MTH 155

## PHY 341 Electronics (four credits)

Circuit theory, vacuum tubes, transistors, power supplies, linear amplifiers, feedback, oscillators.
Prerequisites: PHY 152, PHY 158, MTH 155.
PHY 347-348 Electronics Laboratory (2 credits each)
A. C. circuits and electronics experiments.

Corequisite: PHY 34I

## PHY 361 Mechanics 1.

Applications of Newton's laws to particles, systems of particles, oscillators, central forces, accelerated reference frames, and rigid bodies.
Prerequisites: PHY 152; MTH 258 (may be taken concurrently)

## PHY 371 Modern Physics

Relativity, atomic physics, the experimental bases of quantum mechanics, and properties of nuclei.
Prerequisites: PHY 152, MTH 155

## PHY 381 Electricity and Magnetism I.

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 258

## PHY 400 Seminar (one credit per semester)

## PHY 405 Special Topics

Prerequisite: Permission of the department.

PHY 417-418 Advanced Laboratory (2 credits each)
Prerequisite: PHY 3 I 8

## PHY 421 Thermodynamics

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 I 5 r, MTH 258
PHY 472 Quantum Mechanics I.
Principles of nonrelativistic quantum mechanics. Schrödinger 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 259
PHY 482 Electricity and Magnetism II.
Multipole fields, solutions of Laplace and Poisson equations, electromagnetic waves in insulators and conductors, the derivation of the laws of optics from Maxwell's equations.
Prerequisites: PHY 381, MTH 259

## PHY 490 Independent Study and Research (two, four, six credits)

Prerequisite: Permission of the department.

## PHY 542 Advanced Electronics

Selected topics in the analysis and design of electronic circuits. Prerequisite: PHY 34 I
PHY 548 Advanced Electronics Laboratory (2 credits) Prerequisite: PHY 348

## PHY 562 Mechanics II.

Methods of Lagrange and Hamilton, tensor algebra, rigid bodies in three dimensions, continuous media, and coupled systems.
Prerequisites: PHY 36r, MTH 259

## PHY 573 Nuclear Physics

The properties of ground and excited states of nuclei, nuclear reactions, fundamental particles, nuclear forces, interaction of particles and photons with matter, nuclear particle detectors.
Prerequisite: PHY 472

## DEPARTMENT OF POLITICAL SCIENCE

Professor:
Edward J. Heubel, Chairman

Associate Professors:
Sheldon Appleton
Roger H. Marz
Carl R. Vann

Assistant Professors:
Thomas W. Casstevens
David Potter
William F. Sturner

## Instructor:

Alan L. Seltzer

Political science courses offer 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 included in these courses. The most general educational aim is to increase the student's awareness and deepen his understanding of the realm of politics and government. Political science majors prepare for careers in civil service, law, practical politics, and the teaching of government and social studies. The liberal arts major in political science covers most of these objectives; for secondary teaching there is a social science major within which the prospective teacher can concentrate on political science courses.

## Requirements for the Liberal Arts Major in Political Science

The major requires nine courses in political science including UC os 2 and PS 22 I . Admission to major standing requires successful completion of those two courses and one other political science course.

## LIBERAL ARTS MAJOR IN POLITICAL SCIENCE

## (A typical program)

| Semester 1 | Semester 2 | Semester 3 | Semester 4 |
| :---: | :---: | :---: | :---: |
| Freshman Exploratory | Freshman Exploratory | POLITICAL SCIENCE | POLITICAL SCIENC |
| University Course 052 | University Course | 221 | University Course |
| University Course | University Course | University Course | Foreign Language |
| Foreign Language | Foreign Language | Foreign Language Elective | Elective |
| Semester 5 | Semester 6 | Semester 7 | Semester 8 |
| POLITICAL SCIENCE | POLITICAL SCIENCE | POLITICAL SCIENCE | Senior |
| POLITICAL SCIENCE | POLITICAL SCIENCE | University Course | POLITICAL SCIENC |
| University Course | University Course | Elective | Elective |
| Elective | Elective | Elective | Elective |

## PS 131 Foreign Politics (3 hours)

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.

## PS 205 Politics of the Local Community

Study of state and local government, local political forces, trends in metropolitan and suburban politics, problems of planning in an age of urbanization.
Prerequisite: UC 0,2

## PS 213 World Politics (3 hours)

Intensive interdisciplinary study of concepts and hypotheses basic to the understanding and analysis of relations among nations. The class engages in a mock U.N. exercise and in the analysis of a number of actual cases to gain experience in the application of the hypotheses studied.
Prerequisite: UC 052

## PS 214 World Politics Simulation Laboratory (2 hours)

Detailed analysis of historical case studies and student participation in simulated and/or role-playing world politics "games" designed to enhance the students' appreciation of the factors and pressures which enter into the making of policy decisions in international politics today. Intended primarily for majors.
Prerequisite: PS 2I3-preferably taken concurrently.

PS 221 Systematic Political Analysis
Alternative approaches to the study of political events; how to describe political events and how to compare them; how to design research to test whether the descriptions and comparisons are useful.
Prerequisite: UC os2

PS 222 Systematic Political Analysis Laboratory (2 hours)
Selected research exercises designed to familiarize the student with the techniques of manipulating the results of political research.
Required of all prospective political science majors; not recommended for the general student. Should be taken with PS $22 I$ or after the completion of PS 22 I.
Prerequisite: Permission of the instructor.

## PS 241 U. S. Foreign Policy

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.

Prerequisite: PS 2 I 3

## PS 251 Public Administration

Intensive study of government in action, with special attention to policy formulation, organization, personnel administration, supervision, co-ordination, administrative control and accountability. Case studies from several countries are used to illustrate administrative principles.
Prerequisite: UC os 2

## PS 271 American Political Thought

'The writings of prominent American thinkers and statesmen whose ideas have influenced the development of the American policy will be considered. Selected texts by European thinkers will also be examined with a view to their influence on America. (4 credits)
Prerequisite: UC os 2 or permission of the instructor.

## PS 272 Western Political Thought

A study of the important texts in political thought, focusing on critical moments in the Western tradition, and including questions raised by the decline of Athenian democracy, the dawn of modern liberalism, the rise of democratic capitalism, and emergence of challenges to liberal democracy, such as romanticism, Marxism and some varieties of modern relativism.

PS 301 American Presidency and the Executive Process
A study of presidential politics, decision making and leadership in the American political system.
Prerequisite: UC 052

## PS 302 Legislative Process and Public Policy

A study of legislative behavior and decision-making, emphasizing the problems of public policy development in the American political system.
Prerequisite: UC 0s2

## PS 331 The British Political System

Analysis of British politics and the main features of the British constitution today; parties, parliament, and public policy are interpreted in the context of the British social and cultural setting.
Prerequisite: PS 131 Foreign Politics.

## PS 335 Politics of Latin America

Analysis of the political systems of Latin America and the historical, social, and economic factors underlying them. The major countries (Argentina, Brazil, and Mexico) 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.
Prerequisite: UC 052

## PS 341 Law and Politics

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.
Prerequisite: UC 052

## PS 342 The American Legal System

A study of the American legal system in relation to politics and the American political sygtem. The emphasis will be upon the functioning of the United States Supreme Court as a legal and political instrument.
Prerequisite: UC os 2

## PS 361 Political Parties

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. Prerequisite: UC os 2

## PS 365 Public Opinion

A study of the formation, communication and change of the politically relevent opinions of individuals and groups in modern societies, and of the ways in which these opinions lead to political actions.
Prerequisites: UC 520 and PS 22 I .

## PS 381 Political Theory

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 22 I, and either PS 271 or PS 272.

## PS 430 Seminar in the Comparative Study of Political Systems

Prerequisites: PS 221, and either PS 271 or PS 272.

## PS 490 Special Topics in Political Science

Prerequisite: Consent of the Department.
The department offers from time to time, 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. Except for PS 490, each seminar receives 4 hours credit.

## PS 400, 401 Seminar in Public Policy

PS 410, 411 Seminar in World Politics

PS 420, 421 Seminar in Political Behavior

## PS 430, 431 Seminar in the Comparative Study of Political Systems

PS 440, 441 Seminar in Public Law
PS 480, 481 Seminar in Political Theory
PS 490 Special Topics or Directed Research (2, 4 or 8 hours)
Prerequisite: Consent of the Department.

## DEPARTMENT OF PSYCHOLOGY

Professors:
Harvey Burdick, Chairman
David C. Beardslee
Donald D. O'Dowd
Associate Professors:
Donald Hildum
Irving Torgoff
Assistant Professors:
Kenneth H. Coffman
Richard Kammann
David G. Lowy
Landon Crocker Peoples
Instructors:
Aharon Kuperman
Ralph J. Schillace
The psychology program is directed to the student who wishes a broad foundation in contemporary psychological science, with emphasis on both methods of study and interpretation of research.

Requirements for the Liberal Arts Major in Psycbology
This major requires nine courses in psychology which must include: PSY I46, 35 I or $352,353,36 \mathrm{I}$, and at least one course above the 300 level.

Admission to major standing requires successful completion of three courses in Psychology including PSY 146.

A student who wishes to earn departmental honors must apply and be accepted into the honors program. The prerequisite for applying is 72 semester hours including PSY $\mathbf{1 4 6}$, 351 or 352,353 , and 361 . Honors candidates will be required to take PSY 490 and 499.

## LIBERAL ARTS MAJOR IN PSYCHOLOGY

(A typical program)

| Semester 1 | Semester 2 | Semester 3 | Semester 4 |
| :--- | :--- | :--- | :--- |
| Freshman Exploratory | Freshman Exploratory | PSYCHOLOGY 146 | PSYCHOLOGY 361 |
| University Course | University Course | University Course | PSYCHOLOGY |
| University Coorse | Univerity Course | Foreign Language | Foreign Language |
| Foreign Language | Foreign Language | Elective | Elective |
| Semester 5 | Semester 6 | Semester 7 | Semester 8 |
| PSYCHOLOGY 351 or | PSYCHOLOGY 353 | PSYCHOLOGY | Senior Colloquium |
| 352 | PSYCHOLOGY | University Course | PSYCHLOGY |
| PSYCHOLOGY | University Course | Elective | Elective |
| University Course | Elective | Elective | Elective |
| Elective |  |  |  |

## PSY 146 Foundations of Contemporary Psychology

An introduction both to basic principles and the most recent formulations in psychology. Topics include the central psychological processes of attending, perceiving, learning, thinking, remembering, and the development and organization of personality.

## PSY 241 Individual Differences

A study of 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 251 Abnormal Psychology

The psychodynamics of abnormal behavior, clinical types, methods of investigation, and principles of psycho-therapy. Prerequisite: UC os 4 or PSY 146

## PSY 261 Foundation of Organizational Behavior

Empirical and theoretical approaches to understanding human behavior in complex organizations. (Normally offered in the Winter Semester.)
Prerequisite: UC os 4 or PSY 146

## PSY 271 Child Development

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.
Prerequisite: UC os 4 or PSY 146

## PSY 351 Experimental Psychology: Learning, Memory and Thinking

Theories and research methods on such topics as conditioning, habit formation, perceptual-motor skills, verbal learning and problem-solving. Weekly laboratory.
Prerequisites: PSY 146 and 361; PSY 36I may be taken concurrently.

## PSY 352 Experimental Psychology: Sensation and Perception

Theories and research methods on basic sensory systems. Topics include: modern psychophysics, color vision, and spatial organization. Weekly laboratory.
Prerequisite: PSY 146 and 361 ; PSY 361 may be taken concurrently.

## PSY 353 Motivation and Personality

The study of nature of motivation and emotion, and the organization of personality, with emphasis on research approaches and methods of measurement.
Prerequisites: Two courses in Psychology, including PSY 146.

## PSY 361 Statistics and Research Design

A survey of the principal 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.

## PSY 363 Research Projects

A course providing opportunity for individual projects of research in the fields of perception, learning, motivation, personality, or social psychology.
Prerequisite: Three courses in psychology, including PSY 361, and permission of the Department.

## PSY 421 Advanced Experimental Psychology

Empirical and theoretical investigation of issues in learning, perception, thinking, physiological psychology, and animal behavior, with research projects.
Prerequisites: PSY 35 I or 352 , and 36 r .

## PSY 423 Advanced Social Psychology

Problems of human social behavior are approached through study of the research literature and by carrying out further research.
Prerequisites: Three courses in psychology.

## PSY 427 Human Personality

The development and functioning of the adult person, with emphasis on experimental and clinical approaches to understanding.
Prerequisites: Four courses in psychology including PSY 353 and 36 r

## PSY 431 Historical and Contemporary Issues

Major theoretical issues in psychology, approached both historically and philosophically.
Prerequisites: Three courses in psychology.

## PSY 435 Psychology of Communication

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.
Prerequisites: Three courses in psychology.

## PSY 490 Honors Research

Individual research projects under supervision of a member of the Department.
Prerequisite: Acceptance into Honors Program.

## PSY 499 Honors Seminar

Critical study of theoretical issues involved in selected problems. (Offered only in the Fall semester.)
Prerequisite: Acceptance into Honors Program.

## PSY 510 Developmental Psychology

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 the instructor or acceptance into graduate program.

## PSY 520 Tests and Measurement

Theories of measurement and evaluation. Construction and examination of tests of ability, achievement, interests, and special aptitudes. Objective tests of personality.
Prerequisites: Four courses in Psychology including PSY 353 and 36 I , or acceptance into graduate program.

## PSY 530 Advanced Abnormal

Review of the major neurotic, psychotic, psychosomatic and organic syndromes. Current issues and research in psychopathology.
Prerequisites: PSY 25 I and permission of instructor or acceptance into graduate program.

## PSY 540 Behavior Theory and Learning

Conditioning, reinforcement, punishment, drives and transfer of training will be studied in their relationship to such complex human behavior as education, psychotherapy and the development of motives.
Prerequisites: Five courses in psychology including PSY 35 I , 353 and 361 or acceptance into masters program.

## PSY 595 Special Topics

Exploration of current findings and theory in an area of special interest.
Prerequisites: Four courses in Psychology and permission of instructor.

## PSY 610 Pro-Seminar I

Designed for masters candidates. Review and exploration of current research in personality and learning. (offered only in the Fall semester)
Prerequisite: Acceptance into masters program.

## PSY 611 Pro-Seminar II

Designed for masters candidates. Experimental design and review of theories and research in social psychology. (offered only in the winter semester)
Prerequisite: Acceptance into masters program.

## PSY 620 Individual Testing

Designed for masters candidates. Theory of intelligence testing. Administration and interpretation of Stanford-Benet and Wechsler tests.
Prerequisite: Acceptance into masters program.

## PSY 621 Projective Tests

Designed for masters candidates. Theory, demonstration and practical training in the use of projective techniques with special emphasis on the Rorschach and the Thematic Apperception Test.
Prerequisite: Acceptance into masters program.

## PSY 630 Clinical Psychology

The nature and scope of clinical psychology and the role of the clinician. Assessment and behavior modification will be emphasized.
Prerequisite: Acceptance into masters program.

## PSY 680 Practicum I

Practical experience in the student's area of specialized technical training. May be in one of the following settings: schools, state hospital, courts, psychological service center, social work agency, college teaching, etc. (approximately 200 hours)
Prerequisite: Admission to candidacy in the masters program.

## PSY 681 Practicum II

Continuation of Practicum I at a more advanced level (approximately 200 hours).
Prerequisite: PSY 680

## PSY 690 Research Thesis

Individual research project related to the student's area of concentration.
Prerequisite: Admission to candidacy in the masters program.

## DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY

Professor:
Jesse R. Pitts, Chairman
Associate Professors:
David B. Booth, (Acting chairman)
Leonard Kasdan
George Rawick

## Instructors:

Saghir Ahmad
Emil Oestereicher
Carleton Smith

## Lecturer:

Judith K. Brown
The aim of the department is to provide all majors with a sound understanding of the basic contributions and points of view of sociology and anthropology, as well as to acquaint them with the more important and relevant theoretical and research developments. As much as possible, this is done from a crosscultural perspective. In addition, the program is devised to provide majors with the necessary background and understanding to continue in this area of work, whether on the graduate level, in social work, or in related fields.

The department offers two majors. One in Sociology and one in Sociology and Anthropology. The major in Sociology requires nine departmental courses in addition to UC os8, and one course in statistics (PSY 361). Among these nine departmental courses must be two courses in theory (SOC 311,312 , or SOC 34 I ), and two courses in social research (SOC 42 I , 422 ). SOC 480 or SOC 490 can be substituted for a theory course and/or for a social research course.

The major in Sociology and Anthropology requires nine departmental courses in addition to UC os8. Among these nine courses must be one in sociological theory and one in social research, as well as AN 102, 301 , and 35 r .

The department has a special advanced program which is open to those following the Sociology concentration, who have shown ability in their major courses. During their senior year,
these students will write a special thesis under the direction of a faculty member and assist in the introductory courses by leading discussion sessions.

Admission to major standing requires the completion of two Freshman Exploratories, and two courses of the social science sequence, one of which must be UC os 8 .

## AN 101 Introduction to Anthropology

The study of primates, fossil man, and evolution, problems of heredity and genetics, and problems of race and racial classification. The development of social and cultural systems of the old and new worlds as seen from an archeological-culture historic perspective.

## AN 102 Cultural Anthropology

The study of the nature of culture and methods and theories of cultural anthropology. Characteristic features of language, family life, rituals, and values of tribal peoples in many parts of the world are considered.

## AN 201 Peasant Society and Culture

The analysis and description of agricultural and artisan peoples living a preliterate and preindustrial existence. They will be examined in terms of their modes of articulation with the larger societies of which they are parts, as well as in terms of their internal organization. The perspective will be comparative focusing on political and religious institutions as well as the economic.

## AN 261 A Cultural Survey of Childhood and Adolescence

This course will deal with an analysis of child rearing practices throughout literate (U.S., France, Soviet Russia) and non-literate societies, and will use historical references as well as ethnological ones. The sub-cultures and roles of adolescent peer groups in various societies are discussed.

## AN 301 Peoples and Culture of the Near East

The culture history and processes underlying the present day cultures of the area. Attention will be paid to the student developing an understanding of the three social types found within the area, Bedouin, Villagers, and City dwellers. Present day processes of change will be discussed.

## AN 351 Social Organization

The comparative study of family and kinship, social class and caste, associations, and political organization, with emphasis on non-European societies. Theories accounting for cultural differences in social organization are considered.
Prerequisite: UC os 8 or AN Ioz

## SOC 221 The Sociology of Crime and Punishment

A study of the various forms of deviance from illness and juvenile delinquency to habitual crime with an analysis of the sociological theories developed to explain the incidence of deviance. The second part of the course deals with the modes of social control from hospitals to penitentiaries. Field trips to various agencies are an integral part of the course.

Prerequisite: UC os 8

## SOC 231 Racial and Cultural Relations

A study of racial, national, and religious groups, particularly in the United States, with an emphasis on their historical development, special problems of adjustment and assimilation, and specific present-day problems and trends.
Prerequisite: UC os 8

## SOC 254 Urban Sociology

An analysis of the various causes, characteristics, and effects of urbanization in several different cultures of the world. Specific attention is given to the problems of urban and suburban living and to the changing structure of the city.
Prerequisite: UC os 8

## SOC 255 Industrial Sociology

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 direction of occupational life in America.

Prerequisite: UC os 8

## SOC 281 The Structure of Soviet Society

Analysis of the cultural background of Soviet ideology and the structure of European societies.
Special emphasis is put upon the way Soviet citizens actually live, the structure of the collective farm and of the factories. The roles of the Communist Party member, of the intellectual, of the industrial manager, will be particularly stressed. The forces making for change in Soviet society are analyzed. Prerequisites: UC os 8 and the consent of the instructor.

## SOC 289 Problems of Industrialization

The impact of industrialization upon underdeveloped countries. Family, educational, class, political, and economic changes in response to the pressures of community desires for industrial goods and the diffusion of Western ideologies.
Prerequisite: UC os 8

## SOC 301 Political Sociology

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, the emergence of new states will be studied with emphasis that will vary according to the research interest of the instructor.
Prerequisites: UC o5 8 and the consent of the instructor.

## SOC 305 Sociology of Religion

An examination of the interrelationships between religious phenomena, social structure, and personal behavior. The case of the "secular religions" such as Revolutionary Socialism is analyzed. Relevance of cultist movements to certain social strains is studied.

## SOC 311 European Sociological Theory

A critical examination of the contributions of European thinkers to the body of sociological theory, with special emphasis upon Marx, Spencer, Durkheim, Simmel, Pareto, Weber and Freud.

Prerequisite: UC 058 or consent of the instructor.

## SOC 312 American Sociological Theory

Modern American contributions to sociological theory are considered - in particular, Cooley, G. H. Mead, W. I. Thomas, Park, Mayo, Merton, Parsons, Lipset. The course will review major contributions in various subdivisions of sociology such as deviance and social control, political sociology, etc.
Prerequisite: UC os 8 or consent of the instructor.

## SOC 335 The Family

A comparative and historical treatment of the background of contemporary problems of this institution. Functions, forms, and processes are discussed.
Prerequisite: UC os 8

## SOC 341 Social Change

The prediction and explanation of social changes in society. Special attention is given to such mechanisms of change as crowds, publics, mass movements, and social movements. Implications and research findings for social action are discussed. Prerequisite: UC os 8

## SOC 345 The American Society and Its Critiques

This course will present American Society from the point of view of its detractors, especially of the Marxist persuasion. Rebuttal is offered, and students are expected to contribute to class debates. Half of the course is spent by the student in taking the point of view of the critiques, and half is spent in siding with the rebuttal. Major aspects of American Society will be covered: capitalism, power elite, race relations, bureaucracy, community living, and education.

## SOC 350 Medical Sociology

The sociology of the doctor-patient relationship. The development of medicine from craft to bureaucratic organization. Mental and physical illness as deviance and the hospital as a mode of social control.
Prerequisite: UC os 8 or permission of the instructor.

## SOC 355 Sociology of Occupations and Professions

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, undertaking, and full fledged professions.

## SOC 356 Economy and Society

An examination of economic institutions and behavior in relationship to other aspects of social structure. Analysis is based upon comparative materials drawn from ethnological and historical sources.

## SOC 365 Sociology of Education

The structure of educational institutions in the U.S. as compared with other societies. The teacher role in American Society. The Peer Group and its contract with administration and teacher. The Drop-out, the first generation college graduate.

## SOC 401 Seminar in the Sociology of Knowledge

A study of the sociological factors which influenced the development of systems of thought, art, and literary forms and the development of their markets. Analysis of the intellectual and his role in various societies.
Prerequisites: UC os 8 and permission of the instructor.

## SOC 421 Social Research

A comprehensive survey of the various research strategies and techniques in sociological research. Emphasis will be placed on the methodological problems in current social research.
Prerequisite: UC os 8

## SOC 422 Social Research

Continuation of SOC 42 I , with special emphasis upon interview techniques.
Prerequisite: SOC 42 I or permission of the instructor.

## SOC 431 Sociology of Bureaucracy

A study of bureaucratic forms of organization and their contracts with individual members, internal and external primary groups. Cross-cultural comparisons are stressed.
Prerequisites: UC os 8 and one other Soc. course.

## SOC 471 Principles of Social Work

A preprofessional course in social work, designed as an introduction to the field. Emphasis is on theories which underline practice.
Prerequisites: UC os 8 and permission of the instructor.

SOC 480 Readings in Sociology
A tutorial course in which the student will pursue a course of reading and discussion with the instructor.
Prerequisites: UC os 8 and permission of the instructor.

## SOC 490 Independent Study and Research

Prerequisites: UC 0, 8 and permission of the instructor.

## SOC 565 Sociology of Education

The structure of educational institutions in the U.S. as compared with other societies. The teacher role in American Society. The Peer Group and its contract with administration and teacher. The Drop-out, the first generation college graduate.
Prerequisite: Permission of the instructor.



## SCHOOL OF EDUCATION

L. J. HETENYI, Dean
R. E. RIGHTER, Assistant Dean

## TEACHING FACULTY

Department of Teacher Education
DAVID C. BRICKER Instructor
MARC BRIOD Instructor
HAROLD C. CAFONE Assistant Professor
F. JAMES CLATWORTHY

THOMAS DUTTON
WALTER FEINBERG
JUNE GABLER
Instructor

HARRY T. HAHN
LASZLO J. HETENYI
JOHN H. LANGER Assistant Professor
RODERIC E. RIGHTER Assistant Professor
FRED W. SMITH
Assistant Professor

## College of Arts and Sciences

MELVIN CHERNO Associate Professor of History
PETER G. EVARTS Assistant Professor of English
WILLIAM C. FORBES
EDWARD J. HEUBEL Professor of Political Science
DONALD C. HILDUM Associate Professor of Psychology
DONALD IODICE Assistant Professor of French
G. PHILIP JOHNSON Professor of Mathematics

DAVID G. LOWY Assistant Professor of Psychology
JACK R. MOELLER Associate Professor of German

The School of Education is a genuinely inter-disciplinary body. As the faculty roster indicates, staff members from a great variety of departments of the university contribute their talents to the education of teachers. Undergraduates all work for the Bachelor of Arts degree and are majors in a department or inter-departmental group of the College of Arts and Sciences. Graduate students in secondary teaching fields are sponsored jointly by the School of Education and the College of Arts and Sciences for their degrees, while those in elementary specializations are sponsored by the School of Education alone. In both programs the university awards the Master of Arts in Teaching (M.A.T.) degree.

## 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.

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 take the liberal arts and science courses required of all students, and on this framework they build one of a variety of majors. The Teacher Education Department offers professional education courses, but the student's major and minor subjects are taught by the liberal arts and sciences departments.

Teacher preparation at Oakland has some unusual aspects. First and foremost, the inter-disciplinary approach assures that students receive instruction from a great variety of departments and participate on an equal footing with liberal arts students in the various major fields. A second unusual feature assures each prospective teacher at least two extended field experiences in public schools. In the sophomore year students are assigned as observers in nearby schools for two weekly periods. Thus, early exposure enables them to test their career choices realisti-
cally before a large portion of their college program is invested. In the senior year a ten-week teaching internship completes the training period with a full-time assignment in public school classrooms. The internship provides a transition to professional duties with full assistance by University and school staffs. Since both observation and internship are accompanied by weekly seminars, discussion with professors and fellow students provide constant integration between theoretical and practical phases of the program.

All undergraduate teaching majors must take Education 244, 245, 455, and either Education 428 (Secondary) or Education 433 (Elementary).

## Secondary Teaching Major

Prospective secondary school teachers have a choice of any one of thirteen teaching majors. Consult the section of the catalog appropriate to the fields of concentration for specific courses and requirements for major standing.

| Biology | (See p. 69) | Mathematics | (See p. 106) |
| :--- | :--- | :--- | :--- |
| Chemistry | (See p. 75) | Music | (See p. 134) |
| English | (See p. 90) | Physics | (See p. I43) |
| French | (See p. I17) | Russian | (See p. I24) |
| German | (See p. I2I) | Spanish | (See p. 127) |
| History | (See p. 98) | Social Science | (See p. 192) |
| Latin | (See p. 82) |  |  |

Seven teaching minors are available to the prospective secondary school teacher:

| Art | (See p. 64) | Mathematics | (See p. 107) |
| :--- | :--- | :--- | :--- |
| Chemistry | (See p. 77) | Physics | (See p. r43) |
| English | (See p. 90) | Social Science | (See p. 193) |
| History | (See p. 98) |  |  |

Elementary Teaching Majors
Prospective elementary school teachers must take a common core program and choose an area for major and another 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, plus the concentrations complete all university course requirements, but they do not normally
yield sufficient credits for graduation. To reach the minimum graduation requirement of 124 credits, students, in consultation with their advisers, must round out their program with electives.

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    The Core Program for Prospective Elementary Teachers
Freshmen Exploratories ..--..--------------------------------------------}8\mathrm{ credits
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Psychology (UC 054 or PSY 146) .------------------------------------}4\mathrm{ credits
Art 147 _---------------------------------------------------------------------}4\mathrm{ credits
Music 149 _------------------------------------------------------------------}4\mathrm{ credits
Mathematics 314 _------------------------------------------------------------}4\mathrm{ credits
Mathematics 315-316* _--..-------------------------------------------}8\mathrm{ credits*
Science 305 _---------------------------------------------------------------}4\mathrm{ credits
Area Studies _------------------------------------------------------------------}4\mathrm{ credits
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UC Social Science .----------------------------------------------------------}4\mathrm{ credits
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Total _-- -------------------------------------------------------
*Not required of students in the Foreign Language Major Concentration.
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Major Concentrations
History-Social Science

Additional courses in History, Social Science;
Geography, Area Studies
16 credits
(Including those courses in Freshman Exploratories and
Senior Colloquium applicable to this concentration)


Admission to major standing requires that the student have completed 56 credits, be in academic good standing, have attained a 2.00 average in Freshman Exploratories (2), Psychology, ED 244245 , three additional courses in the Core and/or Concentration, and have received approval of the School of Education.

## Foreign Language

Additional courses in the same language offered in fulfillment of Core requirements.

24 credits

Admission to major standing requires that the student have completed 56 credits, be in academic good standing, have attained a 2.00 average in Freshman Exploratories (2), Psychology, ED 244-245, three approved courses in a single language, and have obtained approval of both the Department of Modern Languages and the School of Education.
Language Arts
English 276 ..... 4 credits
Additional courses in
English, Speech, Foreign Language ..... 20 creditsIncluding those courses in Freshman Exploratories andSenior Colloquium applicable to this concentration
Total12-24 credits
Admission to major standing requires that the student have com-pleted 56 credits, be in academic good standing, have attained a 2.00average in Freshman Exploratories (2), Psychology, ED 244-245,three additional courses in the Core and/or Concentration, and havereceived approval of the School of Education.
Science-Matbematics
Chemistry 114-115 ..... 8 credits
Additional courses in Science and Mathematics approvedby the Committee on Science and Mathematics16 credits(Including those courses in Freshman Exploratories andSenior Colloquium applicable to the concentration).Total
1224 credits
Admission to major standing requires that the student have com-pleted 56 credits, be in academic good standing, have attained a 2.00average in Freshman Exploratories (2), Psychology, ED 244, twoapproved courses in mathematics or chemistry, two additionalcourses in the Core and/or Concentration, and have obtained theapproval of both the Committee on Science and Mathematics andthe School of Education.
Minor Concentrations
History-Social Science
History 214-215 ..... 8 creditsAdditional courses in History, Geography,Social Science, Area Studies4 credits(Including those courses in Freshman Exploratories andSenior Colloquium applicable to the concentration).Total8-12 credits
Science-Mathematics

Additional courses in Science and/or Mathematics ..... 8 credits
(Including those courses in Freshman Exploratories and
Senior Colloquium applicable to the concentration.)Total8-16 credits
Language Arts
English 276 ..... 4 creditsAdditional courses in English, Speech, andForeign Language8 credits
(Including those courses in Freshman Exploratories and
Senior Colloquium applicable to the concentration).
Total4-12 credits

## 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:
r. Completion of the University baccalaureate with a teaching major and one appropriate minor.
2. An Internship 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 program accordingly.

## The Graduate Programs

Oakland University currently offers programs leading to the M.A.T. degree in English and Mathematics for secondary teachers. Additional programs, in such fields as History, Social Science, French, etc., may be available at a future date. Courses of study leading to the M.A.T. degree in Elementary Education are now available for general classroom teachers and for specialists in Reading Instruction. Additional specialized degrees, in Counselling and Guidance, Special Education, Administration, and for School Diagnosticians, may be instituted in the future. For details 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 to the University through regular procedures 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 the School of Education. Successful completion of such a program leads to sponsorship by Oakland University for the appropriate Michigan Provisional Certificate.

## Course Descriptions

## ED 244 Social and Philosophical Issues in Education

Education is treated both as a social phenomenon and as an embodiment of philosophic commitments. Basic concepts studied in the social sciences and philosophy are examined with special attention to their pertinence to education. Such questions as the nature of reality, knowledge, and values are examined from widely differing points of view in order to analyze controversial issues in theory and practice.
Prerequisite: Two Freshman Exploratories.

## ED 245 Psychological and Field Studies in Education

Psychological factors involved in learning and development are examined in lectures, class discussions, and extensive field observations in schools.
Prerequisites: ED 244 and one course in psychology.

## ED 331 Teaching of Reading

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.
Prerequisite: ED 245

## ED 248 Teaching of the Major Field

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 245, major standing, and permission of the student's major department.

## ED 433 Teaching in the Elementary School

The content and methodology of instruction in the elementary school. It is designed to supplement specialized courses in the various teaching fields.
Prerequisites: ED 245, major standing, and permission of the School of Education.

## ED 455 Internship (8 credits)

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 245, major standing, concurrent registration in ED 428 or 433 , and permission of both the student's major department and the School of Education. Application must be filed early in the semester preceding internship.

NOTE: Since the internship requires full-time work for ten weeks, students should plan to complete all courses with the exception of TEACHING OF THE MAJOR FIELD (ED 428 or ED 433) no later than the seventh semester. In some cases it may be possible to take one additional course during this semester, but generally such will not be the case. Arrangements for housing during internship should be made in consultation with the University Housing Office.

## ED 490 Independent Study and Research

A program of directed individual reading and research. Prerequisite: Permission of the Department of Teacher Education.

ED 509 The School and the Disadvantaged Child (2 credits)
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 sub-cultural barriers, problems of motivation, etc.
Prerequisite: Permission of the instructor.

ED 531 Current Trends in the Teaching of Reading (3 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 light of cumulative research findings concerning the development of reading skills.
Prerequisite: Admission to course in any graduate program or permission of the department.
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 ilanguage arts to reading skills and place emphasis upon the developmental skills of pupils starting with kindergarten.
Prerequisite: Admission to course in any graduate program or permission of the department.

## ED 533 Teaching Reading in the Upper Grades (4 credits)

This course is designed to examine the principles, practices and research related to the teaching of reading in grades four and higher. Emphasis will be placed upon the developmental reading skills in a reading program geared to the individual needs of pupils. Particular emphasis will be placed upon reading in the content areas.
Prerequisite: Admission to course in any graduate program or permission of the department.

## ED 590 Special Problems in Education (2-4-6-8 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.
Prerequisite: Admission to course in any graduate program or permission of department.

## 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, 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 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 611 Problems in Elementary Education (4 or 8 Credits)

A study of issues in the curriculum, methodology, organization, and administration of elementary schools. Student needs and preparation determine the specific topics included in a given semester. Students may register repeatedly for this course up to a total of eight (8) credits.
Prerequisite: Admission to course in a graduate program in Elementary Education.

## ED 612 Curriculum Studies (4 credits)

A study of curriculum theories and practices in light of modern educational research. 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.

## ED 631 Problems in Reading Instruction (4 or 8 credits)

A study of diagnostic, methodological, organizational, and administrative issues in reading programs. Student needs and preparation determine the specific topics included in a given
semester. Students may register repeatedly for this course up to a total of eight (8) credits.
Prerequistie: Admission to course in a graduate program in Education and at least one previous course in reading instruction.

## ED 632 Diagnosis of Reading Disabilities (4 credits)

A laboratory course concerned with the 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.
Prerequisite: Admission to course in a graduate program in Education and at least one previous course in reading instruction.

## 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.
Prerequisite: Admission to course in a graduate program in Education and at least one previous course in reading instruction.

## ED 699 Terminal Project ( 4 credits)

The planning and execution of a significant research or action project in accordance with the advice of the student's guidance committee.
Prerequisite: Admission to degree candidacy in a graduate program in Elementary Education and written approval of the student's guidance committee.


# SCHOOL OF ENGINEERING 

JOHN E. GIBSON, Dean
RICHARD R. SHANK, Assistant Dean
Professors:
John E. Gibson
William Hammerle
Associate Professors:
J. Carroll Hill

Keith R. Kleckner
Richard R. Shank
Assistant Professors:
David E. Boddy
Richard E. Haskell
Gilbert L. Wedekind
The engineering program at Oakland University is built on the broad intellectual base laid down by the University's imaginative liberal arts program, and is designed to provide a comprehensive academic preparation for students planning to enter the engineering profession. It is intended especially for the relatively able student entering one of the newer fields of engineering.

The curriculum places particular emphasis on the fundamentals of science and mathematics as well as of engineering. During the freshman and sophomore years, each student majoring in engineering takes work in mathematics, the physical sciences and the life sciences as a foundation for his later studies. He then adds a series of engineering courses ranging from thermodynamics and electronics to the mechanics of solids. Required of every engineering student, this core curriculum is designed to provide the firm academic base necessary to every well prepared engineer.

During his senior year, each engineering student is expected to specialize in a particular field of his own choice. Courses listed as engineering design projects are available for further study in systems, materials, mechanics, electronics, and transport phenomena. By arrangement with other departments engineer-
ing students may also specialize in advanced chemistry, nuclear physics, mathematical analysis, or business administration. This advanced work may take the form of seminars, laboratories, or independent projects lasting as long as two semesters. The senior engineering student is expected to gain considerable understanding of how to approach projects of some magnitude.

To prepare the student for independent project work during the senior year, the engineering and physics laboratories taken in the first six semesters consist of open-ended experiments. With the instructor acting as consultant, the student is permitted to design, assemble, analyze and report on his own experiments. He is encouraged to use the student machine shops and electronic shops to construct apparatus not otherwise available and may call upon an instrument maker and electronics technician for aid in designing more complex pieces of equipment. This concept of individual responsibility tends to encourage on the part of the student the maturity and self-reliance required of every successful engineer.

Every graduate in engineering should be familiar with elementary drafting, machine shop practice, and the programming of digital computers. Courses in these subjects are normally offered every other semester. Since these skills are useful in many of the regular courses, every student is advised to learn them as early in his program as possible.

Entering students planning to major in engineering should present at least three years of mathematics, including one-half unit of trigonometry. If high school preparation is possible beyond the normal requirements for admission to the University, additional courses in mathematics, the laboratory sciences, and English are most desirable. Preparation in elementary drafting and machine shop practice is also useful.

## Career Preparation in Engineering.

Government studies indicate that the present shortage of engineers will grow increasingly acute for the next decade. Even now production is only approximately half the demand. Two-thirds of all engineering graduates find immediate use for their skills in industry or government. The remaining one-third continue their education in graduate school; most in engineering, but a small though significant proportion go on in science,
business, law, or medicine. Of those students who go on to graduate school, one-third remain for the Ph.D. and careers in engineering teaching or research while the majority find increasing demand for their services in industry. The engineering program at Oakland is designed to allow maximum possible latitude of industrial careers while preparing those interested for entrance to the best graduate schools.

The overwhelming majority of industrial and educational authorities advise against premature specialization in preparing for a career in engineering. The American Society for Engineering Education, for example, has recommended* after a year-long study involving a survey of all of the engineering schools in the United States that undergraduate curricula be unified and specialization not be made at the expense of proper grounding in the fundamentals.
*Report of ASEE Committee on Goals in Undergraduate Engineering Education, 1966.
The Oakland curriculum permits preparation for a wide variety of engineering occupations. The engineering core program plus advanced engineering electives results in a program at Oakland University equivalent to the typical requirements in specialized curricula in other fine schools of engineering. Oakland University, however, places high value on not forcing a student to make a premature choice of career specialization. The student should consult with his adviser on the selection and ordering of courses. Listed here are a few typical options:

## Electrical Engineering.

The student interested in Electrical Engineering will find the core courses in CIRCUITS and ELECTRONICS of particular interest. He should elect ADVANCED ELECTRONICS and ELECTRIC AND MAGNETIC FIELDS and give consideration to further work in PROPERTIES OF MATERIALS or AUTOMATIC CONTROL SYSTEMS.

## Systems Engineering.

The systems engineer is called on to develop automatic controls for a wide variety of physical processes, thus to the core program he may wish to add work in several areas. Following INTRODUCTION TO SYSTEMS ANALYSIS; AUTOMATIC CONTROL SYSTEMS and ANALYSIS OF NONLINEAR SYSTEMS should be considered.

Mechanical Engineering.
One of the older and well established engineering disciplines. In addition to the core program which includes introductory courses in THERMODYNAMICS and in FLUID AND THERMAL ENERGY TRANSPORT, the student should elect advanced courses in FLUID AND THERMAL ENERGY TRANSPORT as well as courses in materials or systems area, depending upon his particular interest.

## Metallurgical and Materials Engineering.

Advanced work in PROPERTY OF MATERIALS and MODERN PHYSICS will prove valuable to the student. Oakland University emphasizes study of the solid state and engineering materials rather than extractive metallurgy or mining engineering.

## Cbemical Engineering.

Following the core program, THERMAL ENERGY TRANSPORT and FLUID TRANSPORT should be added. Properties of materials are particularly significant to this student and the modern chemical engineer is increasingly interested in the automatic control of chemical processes. Electives in chemistry will be found valuable.

Sales Engineering and Business.
Engineering students interested in technical sales and technical management will wish to add electives from the offerings of the Department of Economics and Business Administration.

Biological Engineering.
One of the rapidly developing frontiers of engineering. Oakland University is unique in including a program in Biology in its required core program for all engineers. Further work may be taken in cooperation with the Department of Biology during the seventh and eighth semesters.

## Energetics.

Energy transport, conversion and utilization has been the concern of the engineer from earliest time. Oakland University considers this field as one of the core areas in the preparation of engineers. The student prepares for a career involving such applications as plasma engineering, magnetohydrodynamics, ion
propulsion and fuel cells. THERMODYNAMICS, FLUID AND THERMAL ENERGY TRANSPORT, ELECTRIC AND MAGNETIC FIELDS and DIRECT ENERGY CONVERSION are important topics.

## Engineering Science.

The core program includes preparation in all of the engineering sciences. The student should elect advanced work in several of the stems introduced in the core. Breadth rather than penetration in one area, with a view toward graduate work is the major object of this program.

## Other Fields.

A number of fields of student interest such as Nuclear Engineering, for example, are primarily areas of graduate specialization. The program at Oakland is excellent preparation for these. Some areas of undergraduate specialization such as mining engineering and textile engineering, for example, are not offered at Oakland. The Office of Admissions or the School of Engineering should be consulted by prospective students on the availability of preparation for their field of interest.

## Peace Corps.

The School of Engineering will make every effort to arrange programs for those students returning from Peace Corps Service and for those who wish to participate.

## The Core Curriculm In Engineering

Completion of a major in the School of Engineering leads to the degree of Bachelor of Science. The requirements for this major include: 32 credit hours, eight 4 -credit courses, in the Humanities and Social Sciences; 36 credit hours in the sciences such as Physics, Mathematics and Biology; and completion of the core curriculum of 36 hours in Engineering. To this the student will add electives with the approval of his adviser which meet his career objectives and at least 8 hours of which will be in engineering, to total at least 20 hours. Several features of this program are worth noting:
a) There is strong emphasis on the humanities.
b) The program is so arranged that a student will be free to take at least one course in engineering each semester he is in residence, including the freshman year. This early
introduction to engineering provides career motivation and alleviates crowding of technical courses late in a student's program.
c) There is a strong emphasis on the digital computer and analog computer simulation in the program. The first several weeks of ENR ior are devoted to an introduction to digital computer programming and the computer is used steadily thereafter throughout the program.
d) The core curriculum is arranged to provide an introduction to the engineering sciences useful to all engineers. An additional benefit of this arrangement is that the student does not have to make a choice of an engineering specialty until he is in a position to make the choice intelligently.
e) Advanced work in enginereing is elected after consultation with his advisor by the student during his last several semesters to suit his career objectives.
f) The four course parallel program permits a greater concentration with less fragmentation of the student's time than the more usual five course parallel programs.

| Semester 1 | Semester 2 | Semester 3 | Semest |
| :---: | :---: | :---: | :---: |
| Freshman Exploratory | Freshman Exploratory | ENGINEERING 225 | ENGINEERING 241 |
| ENGINEERING 101 | Engineering 115 | MTH 258 | ENGINEERING 226 |
| MTH 154 | MTH 155 | PHY 253-258 | B10 108 |
| PHY 151 | PHY 152 | University Course | Foreign Language |
| Semeste | Sen | Semester | Semester 8 |
| ENGINEERING 345 | ENGINEERING 372 | PHY 472 | Senior Colloquium |
| ENGINEERING 361 | Tecinical Elective* | Technical Elective* | ENGINEERING 409 |
| ENGINEERING 325 | MTH 259 | University Course | Elective |
| Foreign Language | University Course | Elective | Elective |

*The technical elective in Semester 7 is to be related to the technical elective in semester 6.

## UNDERGRADUATE COURSE OFFERINGS

EGR 101 Introduction to Engineering Design (Core)
An introduction to the philosophy and tools of preliminary design. The digital computer and graphical data reduction, statistics, energy and economics as well as human factors and information concepts are applied to the solution of engineering design problems. In small engineering design teams, students examine and report on a problem of topical interest. Recent topics include saline water conversion and mass surface transport for urban areas.

EGR 108 Drafting (1 credit)
Introduction to the use of drafting instruments and drafting procedures for those without previous drafting experience.

## EGR 111 Shop Practice (1 credit)

Introduction to the machine shop, for students without prior shop experience.

## EGR 115 Statics and Dynamics (Core)

Vector mechanics including the conditions of equilibrium, structural mechanics, friction, kinematics, Newton's Laws, momentum, energy and rotation.
Prerequisite: MTH I 54

## EGR 225 Lumped Parameter Linear Systems (Core)

Steady state and transient analysis of electrical, mechanical and thermal lumped parameter linear systems. Use of analog and digital computers to solve the differential equations of these systems. Phasors, resonance, circuit theorems; series representation of elements and signals.
Prerequisites: PHY isi and MTH iss

## EGR 226 Electronic Circuit Design (Core)

Analysis and design of solid state electronic circuits. Fourterminal active network theory applied to the design of smallsignal transistor amplifiers. Harmonic and intermodulation distortion. Linear and nonlinear waveshaping circuits.
Prerequisites: PHY 152, MTH 258, and EGR 225.

## EGR 241 Thermodynamics (Core)

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.
Prerequisites: MTH 258, PHYS 253, 258

## EGR 325 Introduction to Systems Analysis (Core)

Transform techniques, transfer functions, and transducers. Frequency response. Introduction to the analysis of large scale nonlinear systems by analog and digital simulation techniques.
Prerequisite: EGR 226

## EGR 345 Introduction to Fluid and Thermal Energy Transport (Core)

Fundamentals of fluid mechanics; properties of fluids, conservation principles; viscous, inviscous; 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.
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, and columns. Both elastic and plastic materials are considered, including the effects of temperature change.
Prerequisites: EGR 123 and PHY 152

## EGR 372 Properties of Materials (Core)

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.

Prerequisite: EGR 36I

## EGR 405 Special Topics

Advanced study in special areas by seminars. May be taken more than once.
Prerequisite: Permission of the Department

## 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 the instructor.

## EGR 426 Advanced Electronics

High frequency transistor behavior. Design of multistage transistor amplifiers. Modulation and demodulation, oscillators, resonant load amplifiers. Introduction to digital circuit design.
Prerequisite: EGR 226

## EGR 431 Automatic Control Systems

Component and system transfer functions. Transient response to deterministic inputs and definition of time domain specifications. Open and closed loop frequency response. Bode diagrams, Nyquist diagrams, root locus, and frequency specifications. Stability and relative stability. Introduction to the design of compensating networks. Use of the analog computer in control system design.
Prerequisites: MATH 259 and EGR 325
EGR 432 Analysis of Nonlinear Systems
Introduction to applications of numerical methods and digital computer analysis to engineering problems. Applications of phase plane methods and analysis of singular points. Larange's equations and Euler's angles. Analytic methods: perturbation, harmonic balance, describing functions. Forced oscillating systems.
Prerequisite: EGR 48 I

## EGR 445 Electric and Magnetic Fields

Electrostatics including solutions of Laplace's equation, magnetostatics, Maxwell's equations and electromagnetic waves. Prerequisites: PHY 252 and MTH 258 .

## EGR 448 Thermal Energy Transport

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, single and multi-dimensional problems; with laboratory.
Prerequisite: EGR 345, MTH 259 or consent of instructor.

## EGR 449 Fluid Transport

A continued study of the fundamentals of fluid mechanics and their applications; potential flow of invicid fluids, laminar and turbulent boundary layer theory, compressible flow; similarity, modeling, and dimensional analysis.
Prerequisite: EGR 345, MTH 259 or consent of instructor.

## EGR 454 Direct Energy Conversion

Thermoelectric engines, thermionic converters, magnetohydrodynamic engines, photovoltaic effect and solar cells, free energy and fuel cells.
Prerequisites: EGR 241 and EGR 226

## GRADUATE COURSES

For detailed description of graduate courses, admission requirements and the like, see the graduate catalog. Oakland University presently offers work toward the degree of Master of Science in System Engineering.

## SYSTEM ENGINEERING

EGR 520 Analysis and Synthesis of Linear Control Systems
EGR 521 Modern Topics in Control Engineering
EGR 530 Introduction to Random Signals and Systems
EGR 535 Large Scale Systems
EGR 505 Engineering Design Project

## INTERDEPARTMENTAL PROGRAMS AND COURSES <br> THE CONCENTRATION IN AREA STUDIES

Committee:
Clyde B. Sargent (History), Chairman
Robert C. Howes (History)
Robert Hoopes (English)
Edward J. Heubel (Political Science)
Robert Simmons (Modern Languages)
Area studies is a field dedicated to understanding, as totalities, living civilizations whose aspects-history, government, social organization, literature, and so on-are studied in the traditional departments. Specialization in area studies work might be considered by any student who seeks an integrated view of a civilization out of general 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. Strong fields of area specialization at Oakland include American studies, British studies, Chinese studies, West European studies, and Russian studies. The fields of Indian studies and Latin American studies, though less developed at present, may also be arranged for specialized work.

## Center for Far Eastern Studies

Professor Clyde B. Sargent
With the support of a National Defense Education Act grant, the University conducts a Center for Far Eastern Studies. The Center offers intensive training in the Chinese language and in most aspects of Chinese culture, traditional, and modern.

Requirements for the Liberal Arts Concentration in Area Studies Concentration

The area studies concentration is available only on a joint basis with a department. Thus a student might major, for example, in history and Russian studies, or political science and Chinese studies, or sociology and American studies. Appropriateness in combining an area specialization and a department, and in specific course requirements for a joint degree, depends in large measure upon the interests and the career plans of each particular student. In general, each student in the joint program must complete: (I) at least six courses in the major department; (2) at least six courses appropriate to the student's area specialization as prescribed by the Committee on Area studies, especially including foreign language courses where a language is appropriate to the area specialization; and (3) a senior essay or research paper with area emphasis, written in the student's final semester for Area Studies 490.

Admission to major standing in the area studies program requires successful completion of two Freshman Exploratories, any two courses within the major, and four semesters of foreign language study. Interested students should consult with the chairman of the Committee on Area Studies as early in their college careers as possible.

## AS 390 Directed Readings in Area Studies

Readings from diverse disciplines with focus on student's area of specialization, conducted on a tutorial basis by an instructor chosen by the student in consultation with the chairman of the Committee on Area Studies. May be taken more than once.

Prerequisites: at least junior standing, and consent of the instructor.

Interdisciplinary research relating to the student's area of specialization and leading to the writing of a senior essay or research paper. Supervised by an instructor chosen by the student in consultation with the chairman of the Committee on Area Studies. The course grade will depend in part on an oral examination emphasizing the student's research project but ranging broadly over the whole field of his area specialization.
Prerequisites: senior standing, and consent of the instructor.

## GEOGRAPHY

## GEO 200 Geography

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.

## THE CONCENTRATION IN LINGUISTICS

Committee:
William Schwab (English), Chairman
Donald Hildum (Psychology)
Don Iodice (French)
John Gibson (Engineering)
Modern or general linguistics is concerned with the systematic study of language, the mode of communicative behaviour most characteristic of humanity. Work in general linguistics provides a way of thinking which, to take only two extremes, is both as rigorous as the mathematician's and as broadly humanistic as the historian's. The concentration in linguistics is intended to provide students with a firm but extensive grounding in the discipline of modern linguistics within the context of one of the regular departmental major programs of instruction. Career possibilities for students with work in general linguistics are numerous and growing. Graduate work in linguistics is a rapidly developing field. Government and private industry are eager for people with a background in the subject. Foreign and native language instruction increasingly places emphasis on linguistics. Many graduate programs in the social sciences recommend or require work in general linguistics as part of their degree requirements.

Requirements for the Concentration in Linguistics
The concentration in linguistics is available only on a joint basis with a department in the College of Arts and Sciences or with the School of Engineering. A wide range of such combinations is possible: Students may major in English, modern languages, mathematics, history, philosophy, psychology, biology, engineering, physics, sociology, and anthropology (other majors might also be considered) and may concentrate in linguistics at the same time. But the student must first be admitted to a departmental major and secondly be accepted into the concentration upon application to the Committee on Linguistics. His program will then be developed by joint action between the department and the committee. Interested students should consult the committee as early in their college career as possible. Four courses (LIN 301-302, LIN 403, LIN 404) constitute the minimum of work directly in the concentration. Other courses may be recommended.

## LIN 301-302 Introduction to Linguistics

A general introduction to modern linguistics and to synchronic linguistic analysis. The second semester extends the study to include diachronic and other specialized applications of linguistic techniques.

## LIN 365 Applied Linguistics

A series of sections in French, German, Russian, and Spanish are offered in this course. They are the same as FRN, GRM, RUS, and SPN 365.

## LIN 403 Phonology

A presentation of the theory and application of phonetics and phonemics to a variety of linguistic problems, including supervised work with individual informants.
Prerequisite: LIN 3Or-302

## LIN 404 Grammatical Analysis

A presentation of the theory and application of morphological and syntactical analysis, with emphasis on work with original material.
Prerequisites: LIN 30i-302

## LIN 490 Independent Study

Special research projects in linguistics.
Prerequisite: Permission of the Committe on Linguistics

## SCIENCE

## SCI 305 Science in the Elementary School

Content and methodology appropriate to students in the elementary education program.
Prerequisite: Major standing in elementary education.

## SCl 505 Basic Concepts and New Developments in Science

Basic concepts in science and science methodology. An intensive study 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.

## SOCIAL SCIENCE PROGRAM

Requirements for the Teaching Major in the Social Sciences
This major has been devised for students who plan to teach the various Social Sciences in junior or senior high school. The selection of courses provides a broad background of preparation for the various areas offered in the public schools in the fields of the Social Sciences. The concentration which the student selects is of sufficient intensity to meet the requirements of such accrediting groups as the North Central Association.
In common with other education majors, the program requires:
I. Either UC 54 or PSY 146
2. ED 244-245, ED 428, and ED 455

Special requirements of the major include:
3. 8 hours in area studies courses
4. 28 hours of coursework in the social sciences in varying combinations. The 28 hours must be distributed as follows:
a. 20 hours in courses offered by any one of the social science departments. For purposes of this program, the Departments of Economics, Political Science, Psychology and Sociology-Anthropology are defined as social sciences. Thus, the student concentrates his work in one of these departments.
b. The additional 8 hours to be taken from among the other departments in the social sciences. (Courses in geography may be counted as part of this total.)

In this program, university courses, freshman exploratories, and the senior colloquium may, when appropriate, be counted in meeting the required totals.

A number of minors may be selected in consultation with the advisor to accompany the Social Science major. Admission to major standing requires successful completion of two social science courses beyond the university course level and concurrent acceptance into the Teacher Education Program.

## Requirements for the Social Science Minor

The minor requires a minimum of 24 hours selected from courses offered by the Social Science Departments or courses in Area Studies, Geography, Western Institutions, including such Freshman Exploratories and Senior Colloquium as fall within the minor.

Students majoring in the Social Sciences or History may NOT elect this minor.

SS 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 relationship among discipline areas comprising the social studies. The course will stress application of these studies in urban area elementary schools.
Prerequisite: Education 245 and acceptance into a graduate or certification program or major standing in Elementary Education.

## SPEECH

## SPH 201 Effective Oral Communication

Theory and practice in oral communication, with emphasis on the adaptations required by particular speaking goals, audiences, and occasions. Through the researching, organizing, and delivery of classroom speech assignments (informative, persuasive, discussion, manuscript, etc.) students are prepared for a variety of speaking situations. Classroom interaction aids in identifying, and thereby correcting or enhancing, individual personality and delivery characteristics. Prerequisite: Consent of the instructor.

## SPECIAL EDUCATIONAL PROGRAMS

## Alumni Education

The Alumni Education Department represents Oakland University's abiding concern for the student's educational development beyond graduation. Instituted with the assistance of the Kellogg Foundation, the alumni education program is designed to provide college graduates with systematic counsel and assistance in identifying and meeting their life-time educational needs. With emphasis on the personal and professional goals of the graduate, the Department serves as a counseling center and clearing house of information on the kinds of desirable programs available to alumni wherever they are located.

## Division of Continuing Education

Oakland University's Division of Continuing Education, the first of the academic divisions of the University to initiate its program (Sept. 1958), offers a comprehensive and varied program of courses, conferences, and special events, all open to adults of the community it serves.

Recognizing that education is a never-ending process, that 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 Continuing Education program as an integral part of its function. It remains aware that the fulfillment of this objective is never fully achieved in the life of any individual, that the pursuit of excellence is an infinite task never completely accomplished by even the most dedicated student.

Because the inherent philosophy of Oakland University is to imbue the student with an insatiable hunger for more and more knowledge, it has extended its horizons to its graduates and to other members of the community to provide the maximum opportunity, environment, and encouragement to continue their education throughout their lives.

The Division offers courses and conferences in professional and cultural subjects at a university level in content. The difference here, however, is that the only prerequisite for taking a course is the desire to learn.

A new series of courses is presented each term and conferences on various subjects are held throughout the year. Currently, 880 courses are offered in the humanities, fine arts, business, engineering, government and special skills.

In addition, the Division conducts numerous closed courses designed specifically to meet the needs of business, government, and social agencies. A Pre-College Study Center resident program is offered each summer to acquaint college-bound students with campus life and to sharpen their study skills and increase proficiency in reading, composition, languages, and science. Opera workshops and preview lectures of the Meadow Brook Festival and Stratford Shakespearean plays are among the many cultural features of the Division.

Conferences range from the problems of widows and divorcees to life insurance agency management. Local issues such as traffic safety and county home rule are studied by the officials and leaders of the community with the objective of action programs leading to solutions or improvement.

The Division also directs the Continuum Center for Women which offers a unique and meaningful psychological testing program and counseling service, the Mott Center for Community Affairs, and the Alumni Relations and Placement Departments. It also administers the Alumni Education Department which counsels former students toward purposeful and planned programs of lifelong learning.

Course catalogues and program informational brochures are available upon request ( $33^{8-7211}$, extension 2171 ).


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