

OAKLAND UNIVERSITY GENERAL CATALOG • 73&74



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FUTURE OFFERINGS AND PROPOSALS UNDER CONSIDERATION

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- Nursing (1974)
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- Public
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- Operations Research (1974)
- Industrial Technology
- Metropolitan Studies
- Physicians Assistant
- Metro. and Regional
 - Communications

MASTERS PROGRAM

- Area Studies (MA)
- Biology (MS)

- Performing Arts (MFA)

DOCTORAL PROGRAM

- Interdisciplinary Science

APPROACHING YOUR CAREER

At Oakland, the advantage of our size assures you of many academic choices and yet we are small enough to provide the personal touch. And as a four year university we present degree programs including graduate school. We offer both day and evening programs in a country setting to high school graduates, transfer students as well as part-time and evening aspirants. The new programs we have created only indicate the many changes occurring in the career and job world.

No doubt career planning has already involved you with yourself, your family, school counselors and teachers. This sorting-out process should also bring you into contact with our admissions staff, faculty advisors and career advising and placement people. We also help locate career-related summer jobs, placement after graduation and placement help later on.

As a thought stimulator, we have sketched highlights of just a few career opportunities. Perhaps you will realize a point or two about your own career or how to combine more than one profession. Our purpose is to encourage you to ask yourself critical questions.

CAREERS IN LAW

Pre-law students here major in many fields and ultimately become lawyers who are also engineers, sociologists, biologists, political scientists or teachers. For some, a major in philosophy is as relevant as political science is for others. These varied pathways all prepare students to reason, to research, to organize, to communicate.

CAREERS IN MEDICAL AND HEALTH FIELDS

Pre-medical and pre-dental students enjoy a broadening curriculum here which now offers the health sciences including nursing, medical technology, medical physics and environmental health technology. Undergraduates prepare in engineering, chemistry, physics, as well as traditional biological sciences. Biomedical engineering and health-medical behavioral sciences are important related career areas.

CAREERS IN THEOLOGY AND MINISTRY

Although we do not formally list pre-theology or pre-ministry, we do offer undergraduate scholarly programs for the

AT OAKLAND UNIVERSITY

traditional ministerial candidate as well as health and social sciences for those interested in missionary careers. The student entering one of the graduate divinity or theology schools can be well-grounded here in a broad liberal arts perspective.

CAREERS IN BUSINESS

Students studying for careers in business and management discover that the most successful business professionals generally understand broad areas of marketing, production, the role of research and computer systems. They comprehend people systems: personnel, labor, and human relations. They are well-read, for instance, in a world view of finance, trade, foreign affairs, energy and ecology. Modern management people can expect to live in foreign lands and speak the language.

COLLEGE TEACHING AND ADMINISTRATION

The traditional path to a professorship is through graduate studies and a specialization in one or more fields. Such a career can prepare one for service in the public sector as consultant, author; and in career government and politics. Educational planning and administrative positions often are chosen as late careers.

CAREERS IN SOCIAL SERVICES AND PLANNING

The public-service minded student can consider the newest offerings such as metropolitan and regional communications, public administration, and human resources development for an understanding of complex social problems. Community services, foreign language, guidance and counseling, are needed talents especially for case and group work. Ultimately, however, a background in social planning and organization is essential for careers in major social programs.

Of course, this listing is incomplete. The obvious ones, like engineering, teaching, acting or journalism are all in the catalog. We hope you will feel welcomed and encouraged to call or write us for help. Telephone numbers, addresses and a list of available publications are noted on the inside back cover.

CALENDAR

1973 FALL SEMESTER

August 30,31	Thursday, Friday	Registration
September 4	Tuesday	Classes begin
November 22-25	Thursday-Sunday	Thanksgiving Recess
November 26	Monday	Classes resume
December 12	Wednesday	Classes end
December 13-14,17,18,19	Thurs.,Friday,Mon., Tuesday, Wednesday	Final Examinations
December 19	Friday	Close of Fall Semester

1973 WINTER SEMESTER

December 3-19		Pre-registration
January 3,4	Thursday-Friday	Registration
January 7	Monday	Classes begin
March 9-12	Saturday-Tuesday	Winter Recess
March 13	Wednesday	Classes resume
April 16	Tuesday	Classes end
April 17,18,19,22,23	Wednesday,Thursday, Friday,Monday,Tuesday	Final Examinations

1974 SPRING SESSION

April 8-23		Pre-registration
April 26	Friday	Registration
April 29	Monday	Classes begin
May 27	Monday	Memorial Day
June 2	Sunday	Commencement
June 18	Tuesday	Classes end
June 19	Wednesday	Free day
June 20-21	Thursday-Friday	Final Examinations

1974 SUMMER SESSION

June 17-21		Pre-registration
June 24	Monday	Registration
June 25	Tuesday	Classes begin
July 4	Thursday	Holiday
July 5	Friday	Classes resume
August 14	Wednesday	Classes end
August 15-16	Thursday-Friday	Final Examinations

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OAKLAND UNIVERSITY

Ideally situated in fast-growing Oakland County, this young suburban university, now with 380 faculty, has opened its fall 1973 doors to over 8300 registrants.

These beautiful 1600-acres were amassed by automotive pioneer John F. Dodge. His widow subsequently married Alfred G. Wilson and in the late 20's they built their 100-room mansion Meadow Brook Hall on the estate. In 1957, the Wilsons gave all of Meadow Brook Farms and \$2,000,000 to the State of Michigan to establish a new university. The doors of Michigan State University-Oakland were opened in 1959.

The intervening years have seen much change including a new name, Oakland University. In 1970, the Michigan Legislature granted Oakland its independence from Michigan State University. Oakland now has its own eight-member Board of Trustees and its own President, 46-year-old Donald D. O'Dowd.



Oakland's progress in creating relevant education can be exemplified by its respected School of Engineering where undergraduates are broadly trained for greatest career versatility. In 1970, Oakland received its first doctoral program in Systems Engineering. It further explores this broadening and interdisciplinary concept to equip the candidate for today's most complex technological problems.

Oakland already offers master's programs in sixteen fields. Recently approved are Master's of Science in Management, Guidance and Counseling, and History.

The School of Education now offers its latest master's program in Early Childhood Education, and has added a new minor in Physical Education. A Human Resources Development program is new.



The College of Arts and Sciences has many new programs including Theatre Arts, Judaic Studies, Journalism, and the Health Sciences including Nursing.

The School of Performing Arts plans to add a master's program to the Academy of Dramatic Art now a two-year diploma-granting program for professional careers in the theatre.

A new Evening Program provides credit and degree offerings both on and off campus. The Continuing Education Division offers a hundred credit-free diploma programs.

Over 1200 students live on campus, 500 of whom reside in a very successful freshman residence hall program. Other living options include special "quiet" wings, and room-only and co-op plans.

The University is a member of the Great Lakes Intercollegiate Athletic Conference. It is also the home of the twin professionals, Meadow Brook Music Festival and Meadow Brook Theatre.

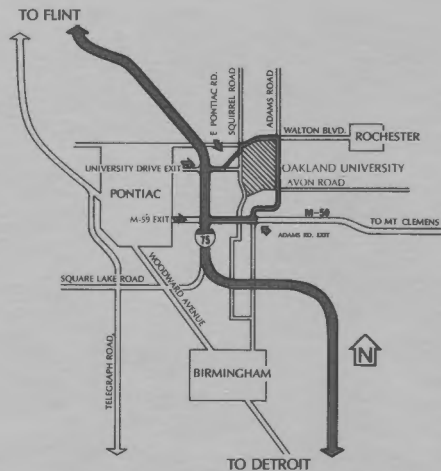
OAKLAND UNIVERSITY

CONVENIENTLY LOCATED
off I-75
Take University Road
Exit to OU

STUDENTS COMMUTING
have paved, lighted
parking throughout
campus

STUDENTS RESIDING
on campus park at
residence halls

(see map — previous page)



ADMISSION, ADVISING REGISTRATION AND GRADING

ADMISSION TO FRESHMAN STANDING

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

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

ADMISSION OF TRANSFER STUDENTS

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

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

ADMISSION OF TRANSFER STUDENTS FROM MICHIGAN COMMUNITY COLLEGES

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

A student may transfer to the university as many as 62 semester credit hours earned at a community college. Students whose academic records combine work at both two and four year institutions may transfer only 62 semester credit hours if the last institution attended was a community or junior college. Transfer credit will be granted for those courses in which a student received a C or a 2.0 grade or better. Technical and applied science courses will be granted credit only where the courses are directly relevant to the student's intended major.

RECOMMENDED PREPARATION FOR TRANSFER

Oakland University participates in the Michigan Community College/Senior College Agreement. Graduates of consenting Michigan Public Community Colleges are considered to have met freshmen and sophomore general education requirements. Other transfer students may present a wide variety of course work for transfer credit. The university tries to offer maximum credit for courses already completed. Most community college transfer students concentrate on completing courses related to general education prior to transfer. Although the university attempts to allow maximum flexibility for meeting the general education requirements while at the community college, the transfer student is advised to choose courses in such a manner so as to meet the majority of the general education requirements prior to transfer. Oakland University general education course work is arranged in field groups. Perspective transfer students should try to take at least one course in four of the five field groups

outside of the intended major. The field groups and the academic units sponsoring courses within them are:

- A. **Symbolic Systems**
This group includes courses in linguistics; mathematics; foreign language, or computer programming.
- B. **Letters**
This group includes literature courses taught in English or any foreign language; history, philosophy; religious studies; or classics. Courses may focus on Western or non-Western culture.
- C. **Arts**
This group includes introductory courses in art, music, or theatre. Emphasis is placed on appreciation, history, elements, forms, styles, and criticism.
- D. **Social Sciences**
This group includes course work in either anthropology, economics, political science, psychology, or sociology. Teaching majors should choose one course in psychology.
- E. **Area Studies**
This group includes any course which deals in the fundamental principles, historical development or major achievements of the non-Western civilizations of Africa, China, India, or Japan; Latin America, or the Slavic Nations.
- F. **Natural Science**
This group includes courses in Biology, Chemistry, Physics, or Environmental Studies.

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

ADMISSION OF STUDENTS WHO ARE NOT CITIZENS OF THE UNITED STATES

A student from abroad should write to the Director of Admissions, Oakland University, Rochester, Michigan 48063, at least one year before the time he or she wishes to be admitted. The candidate will be sent instructions and an application form

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

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

ADVANCED PLACEMENT

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

CREDIT BY EXAMINATION

College Level Examination Program (CLEP):

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

Accelerated Degree Program:

Candidates entering Oakland University who have had no previous college experience and who have demonstrated superior preparation and accomplishment can be considered for admission into the Accelerated Degree Program of the University. Students who are successful in entering the program will be awarded credit toward graduation based on the College-Level Examination Program mentioned above to the extent that they will earn the baccalaureate in three academic years. Specific requirements for admission to the Accelerated Degree Program may be obtained from high school counselors or by contacting the Director of Admissions, Oakland University, Rochester, Michigan 48063.

APPLICATION FOR ADMISSION TO UNDERGRADUATE PROVISIONAL AND GUEST ADMISSION STATUS

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

HEALTH CERTIFICATION REQUIREMENT

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

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

ORIENTATION

Orientation is designed to introduce new students to academic programs and to campus life at Oakland University. The summer orientation program provides an opportunity for entering students to meet other students and faculty who can help them to anticipate the opportunities afforded by a university education and the responsibilities inherent in receiving such an education. From these meetings students gain some insight into the distinctive character of Oakland University. At orientation students take placement tests, receive academic advising, register for classes, participate in campus activities, and attend information meetings which we hope are helpful in acclimating students to college. All new students, except those from other states and foreign countries, are expected to attend one of the summer orientation programs. Out-of-state and foreign students may participate in an orientation program after their arrival on campus immediately before entering classes in the fall.

A fee of \$35 is charged to cover the cost of the two-day freshman orientation sessions and the year-long freshman year program. New transfer students must attend a one-day special advising session sometime in the summer. A fee of \$10 is charged to cover the cost of orientation for transfer students.

ACADEMIC ADVISING

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

ADVISERS FOR FRESHMEN

Academic advisers for first-year students are selected to provide special assistance to freshmen because of the problems and opportunities that are unique to the freshman year. Each freshman is assigned a faculty adviser, and a student adviser who work jointly in assisting the new student to understand and effectively deal with his or her new environment. Specifically, some of the many functions of advisers for freshmen are:

- (a) To provide a meaningful description and interpretation of the academic programs at Oakland University.
- (b) To assist freshmen with the formulation and achievement of their educational objectives.
- (c) To help them become acclimated to university life (particularly to the academic programs), giving individual attention and guidance to those with special concerns.
- (d) To develop a personal understanding of and appreciation for each advisee as an individual in order to be able to facilitate his or her academic progress and personal development.

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

ADVISERS FOR UPPERCLASSMEN

From the end of the freshman year until the senior year each student is advised by the department in which he or she intends to major. A faculty member from each department is responsible for the coordination of the advising functions for the department, and arrangements to meet with faculty advisers are scheduled through the departmental office. It is the adviser's function to help the student select courses, develop educational objectives and career interests, resolve problems related to academic procedures, and derive the

maximum benefit from the educational experience. It is the student's responsibility to arrange an appointment with an adviser at any time the student may have questions about his or her academic program. In addition to faculty advisers, most departments employ selected upper-class student advisers who are available to assist students with most questions and problems.

Upperclassmen who have not indicated a preference for a major are advised by counselors in the Office of Student Services. Students who have questions about the Advising program should direct them to the Advising Office, 128 North Foundation Hall.

READMISSION

A student whose attendance at Oakland is interrupted for one or more semesters must apply for readmission. Readmission is automatic for students who left the university in good standing and who have not attended another college or university. Application should be made to the Readmission Office, 154 North Foundation Hall at least one month prior to the beginning of the semester the student expects to re-enter. Students who have attended another college or university during their absence from Oakland must pay a \$15 application fee. A check in this amount, payable to Oakland University, should accompany the application.

COURSE AND CREDIT SYSTEM

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

PETITION OF EXCEPTION

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

Students in the College of Arts and Sciences may obtain a Petition of Exception form in the Office of Student Services, 154 North Foundation Hall. When it has been completed, countersigned by a faculty member in the student's major department, and returned to the Office of Student Services, it will be referred to the Committee on Instruction. The student, the Registrar, and the student's academic adviser or major department will receive a copy of the petition contain-

ing the action taken by the committee.

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

CHANGE OF COURSES

Courses may be dropped at any time during the term the student decides not to complete a course. However, after the first two weeks of school, the student who decides to drop a course will receive an "N" grade. The dropping of courses for which refund of fees is claimed must be processed on a "drop-and-add" slip through the Office of the Registrar. (See also Refund of Fees pp. 34, 35.) A student who wishes to drop a course after refund deadlines should request assignment of an "N" grade from his or her instructor.

An addition of courses or change of sections initiated by the student can be made after the end of the second week of classes.

MODIFIED MAJOR

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

COURSE COMPETENCY

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

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

REPEATING COURSES

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

GRADES AND GRADE POINT SYSTEM

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

Oakland University numerical grades may be described as follows:

4.0	excellent
3.0	good
2.0	satisfactory
1.0	inadequate but receives credit

I—Incomplete

The "I" (Incomplete) grade is a temporary grade that may be given only after the thirteenth week in a course in which a student is unable to complete the required work because of severe hardship beyond the control of the student. 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 four weeks after the beginning of the next semester that the student is in residence, or a grade of "N" will be recorded. If more than three semesters intervene before the student resumes residence, then the "I" grade becomes an "N" grade.

N—No Grade

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

on the grade report, but will not be recorded on the transcript of the student.

P—Progress

The grade of "P" (Progress) is a temporary grade that may be given only in a course that could not be completed in one semester. A department that wishes to assign the grade of "P" must receive approval for such courses from the dean of the appropriate school or college prior to the enrollment of students. Such courses are usually research projects. This grade is given only for work that is satisfactory in every respect; it is work for which students need more than one semester in order to complete the course.

"P" grades must be removed within two calendar years from the date of assignment. If not removed within the time limit, the "P" will be changed to an "N".

S—Satisfactory

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

GRADE POINT AVERAGE

A student's grade point average is computed by multiplying the grade received by the hours of credit for each course and dividing by the total credits carried in all semesters. If a course has been repeated, only the credits carried and points of the last grade earned are computed. Courses for which "I", "P", "S", or "N" are reported are not used in this computation.

ACADEMIC RECORD

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

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

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

ACADEMIC HONORS LIST

In recognition of academic achievement a list of outstanding undergraduate students in three categories is published each

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

ACADEMIC PROBATION AND DISMISSAL POLICY

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

SEPARATION FROM THE UNIVERSITY

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

WITHDRAWAL

A student withdrawing from the University must do so through the Office of Student Services, 154 North Foundation Hall. The withdrawal must be presented to the Registrar for recording and authorization of any possible refund. All students who withdraw must be readmitted in order to register for classes.

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



COURSE FEES AND OTHER FEES

General Policy

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

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

COURSE FEES

All course fees and special fees must be paid in full before a registration is considered final. Partial payment in connection with early registration is a service offered to students, but no registration is considered final until all fees are paid.

Students who are residents of Michigan and register as undergraduates are assessed \$19 per credit hour. Those who register as graduate students are assessed \$24 per credit hour.

All students who are not residents of Michigan are assessed \$51 per credit hour.

SPECIAL FEES

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

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

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

Special fees are also charged for applied music instruction and some laboratory courses. These fees are charged per course as follows:

Studio Art, 100, 101	\$10
Biological Sciences 112, 114	10
Chemistry 107, 117, 118	10
Physics 158	10
Engineering 172	10
Computer Science 180, 182	10
Education 585	10
Education 597	25
Applied Music	
Individual Instruction	60
Group Instruction	15

COURSE COMPETENCY BY EXAMINATION FEE

Students who are residents of Michigan and register as undergraduates for course competency by examination are assessed \$12 per credit. See p. 16 for course competency regulations. Those who register for course competency as graduate students are assessed \$15 per credit hour.

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

ENROLLMENT DEPOSIT

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

APPLICATION FEE

A fee of \$15 must accompany all applications from students applying to the degree programs of the university. This is a processing fee which is paid only once and is not refundable. Guest and post-baccalaureate students are not required to pay this fee.

LATE REGISTRATION FEE

Students registering or paying initial fees after 8:00 a.m. the day classes officially begin will be required to pay an additional, non-refundable fee of \$15. Students who take

courses exclusively within a program scheduled to register after the beginning of classes will not be required to pay the late registration fee if they register during the special registration period scheduled for such groups.

ORIENTATION FEE

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

PARKING POLICIES AND FEES

Throughout its campus development, Oakland University has continued to construct lighted and paved parking for all students. (See map at front of catalog). Because the State does not provide funds for parking lot construction, the University is obliged to charge faculty, staff and students a yearly fee normally paid at fall registration. This fee is recommended by a Parking Commission, approved by the Board and the revenues are properly applied against the costs of parking lot construction and repair. The parking fee, \$26.00 per year, includes the patrol services of public safety and normal cleaning and snow removal. Students who do not enter until Winter Semester are charged \$13.00 for the remainder of the year; reduced fees of \$8.00 and \$4.00 are charged respectively for those who enter at Spring and at Summer Session. The Parking Commission understands that withdrawals from school may be for reasons which could entitle a person to a refund.

COMMUTERS: About 85% of Oakland University daytime students commute and the special lots for commuters are located throughout the campus. Ride pool parking is arranged through Commuter Services Office and with Public Safety.

RESIDENTS: Students, staff or faculty who live on campus are authorized to use special parking lots at residence halls.

FEES FOR RESIDENTIAL SERVICES

The Residence Halls are financially self-supporting. Room and Board fees reflect the actual cost of operation and are established by the University's Board of Trustees. The 1973-74 rate for Room and Board is \$1290 for the academic year. Special options such as: room only (\$810), single rooms (additional \$250), and cooperative housing (\$650) are available to upperclass students. If the student signs a housing contract prior to or during the Fall Semester, that contract is binding for both the Fall and Winter Semesters. If the con-

tract is signed during the Winter Semester or Spring or Summer Session, it is binding for the single semester or session. The Room and Board fee is due at registration or may be paid in four installments, the first of which is due at registration. The second, third and fourth installments are due on the first day of the three months following registration. If a student withdraws from the University, housing fees are refunded on a prorated basis.

REFUND OF FEES

A student who withdraws from the university or drops a course which reduces his or her total credit load will receive a refund of fees upon application to the appropriate office. Undergraduate students withdrawing from the university apply to the Office of Student Services. Graduate students withdrawing from the university apply to the Office of the Dean of Graduate Studies. Changes in enrollment are processed in the Office of the Registrar. The amount of refund will be based on the following schedule.

Date Application is Received	Tuition Refund
Before the beginning of classes	100%
After the beginning of classes and before the beginning of the second week	80%
During the second week of classes	70%
During the third week of classes	60%
During the fourth week of classes	50%
During the fifth week of classes	40%
During the sixth week of classes	30%
During the seventh week of classes	20%
After the beginning of the eighth week of classes	0%

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

OUT-OF-STATE TUITION RULES

Students enrolling at Oakland University shall be classified as in-state or out-of-state students for purposes of assessing tuition charges. Normally a student who has resided in Michigan six months immediately preceding his or her first enrollment and who has no residence anywhere other than in the state of Michigan will be considered a resident for the purpose of assessing tuition charges. Students who have not established a Michigan residence will be registered as out-of-state students. It is the student's responsibility to register under the proper in-state or out-of-state classification. Questions regarding residence matters may be directed to Chairman, Out-of-State Rules Committee, 263 South Foundation Hall, Oakland University, Rochester, Michigan 48063.

FINANCIAL AID AND SCHOLARSHIPS

SCOPE OF THE PROGRAM

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

PROCEDURES FOR APPLICATION AND RENEWAL OF AID

The University, as a member of the College Scholarship Service, requires all students seeking assistance to file a confidential financial statement with that organization. Forms for this purpose may be obtained from the applicant's high school or from the University. In addition, the University requires that applicants provide the Oakland University Application for Financial Aid, and a copy of the most recently filed federal income tax forms 2040 and the corresponding W2 forms.

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

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

SCHOLARSHIP

Oakland University has a comprehensive scholarship program designed specifically for the student who has demonstrated outstanding academic achievement or who has contributed significantly to extra-curricular activities while in high school or college. These scholarships vary in amount, but outstanding freshmen or transfer students may be awarded up to an amount equal to full tuition, room and board. Further, Oakland University offers 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 these premium scholarships are selected by a scholarship committee.

Scholarships amounting to approximately one-half tuition are awarded annually to upperclass students in recognition of extraordinary academic accomplishments.

FINANCIAL AID FOR TRANSFER STUDENTS

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

SPECIAL AND ENDOWED SCHOLARSHIPS

Funds for the Oakland University Grant and Scholarship Programs are derived from the general budget, from gifts from individuals, groups and corporations, and from the fund-raising efforts of the Oakland University Scholarship Committee for Macomb County. Scholarships are also provided from the following endowment funds:

Mr. and Mrs. Benjamin Anibal Scholarship

**Mary Fogarty Anibal and Eleanor Anibal Burgum Memorial
Scholarship**

Campbell-Ewald Scholarship

George H. Gardner Scholarship

Mr. C. Allen Harlan Scholarship

Herbert M. Heidenreich Scholarship Fund

Ormond E. Hunt Scholarship Fund

Mr. and Mrs. Roger M. Kyes Scholarship

Harry A. MacDonald Memorial Scholarship

Mildred Byars Matthews Memorial Scholarship

Oakland University Women's Club Scholarship Fund

Pontiac Central High School Scholarship

Village Women's Club of Birmingham Scholarship

Ruth E. Wagner Scholarship Fund

A. Glen Wilson Scholarship

Matilda R. Wilson Memorial Honor Scholarship
Thomas E. Wilson Scholarship

Additionally these scholarships are offered each year:

Alvin M. Bentley Foundation Award
General Motors Scholarship
Lee Grekin Memorial Scholarship
Isaac Jones Memorial Scholarship
Gladys B. Rapoport Scholarship

LOANS

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

Loans for personal and emergency needs, but not for payment of regular University fees for tuition, room and board or other fees that can be anticipated, are provided from gifts from the following individuals and groups.

Century Brick Loan Fund
Davis R. Robson Memorial Loan Fund
Pontiac Kiwanis Club Loan Fund
C. Allen Harlan Loan Fund
H. H. Corson Loan Fund
Joan Selby Memorial Loan Fund
Greater Pontiac Centennial Student Loan Fund
Li Russ Club Student Loan Fund
Walter K. Willman Loan Fund
W. Everett Grinnell Loan Fund
Oakland County Engineering Society Loan Fund
Student Activities Coordinating Council Loan Fund
John A. MacDonald Loan Fund
Lathrup Village Women's Club Fund
**Piety Hill Chapter of the Daughters of the American
 Revolution of Birmingham Loan Fund**
Paul Solonika Loan Fund
William Spickler Memorial Loan Fund

George N. Higgins Loan Fund

James Mangrum Loan Fund

Pat Dandurand Memorial Loan Fund

Civitan Loan Fund

Alumni Loan Fund

Insurance Women of Detroit, Inc. Loan Fund

Michael Werenski Memorial Loan Fund

Mark Platt Memorial Loan Fund

Women's Literary Club of Pontiac Loan Fund

PART-TIME EMPLOYMENT

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

RESIDENT HALLS: FACILITIES AND COSTS

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

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

RESIDENCE FACILITIES

The University maintains seven residence halls which offer variety in program, accommodations, and size. They are attractively grouped on spacious wooded grounds overlooking a small lake and are all within convenient walking distance of classroom buildings, the Kresge Library, the Oakland Center, and the Sports and Recreation Building. Anibal House, Fitzgerald House, and Pryale House are L-shaped buildings with twenty-four double rooms in each wing; the wings are joined by a student lounge and an apartment for the Head Residents. Hill and Van Wagoner are six-story units containing 100 double rooms, a lobby, lounge, recreation room, and Head Resident's apartment. Vandenberg Hall is a seven-story twin-tower structure. It contains 285 double rooms, student lounges, multiple-use areas, study and seminar rooms, and recreation areas. The newest facility, Hamlin Hall, completed in 1968, houses 676 students. A nine-story hall, it has a main lounge, a lounge on each floor, and several multipurpose areas. Hamlin and Vandenberg Halls provide a variety of suite plans of accommodation.

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

FOOD SERVICE

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

GENERAL POLICY

To be eligible for University housing a student must be enrolled for a minimum of eight credit hours, except with the permission of the Director of Residence Halls. The Board of Trustees of the University requires that:

- A. All full-time unmarried students who have earned less than 59 credit hours and who do not commute from the residence occupied solely by a single member family related to the student at the time of registration, must live in University Residence Halls.
- B. Exceptions to this policy will be processed by a University administrative committee established for this purpose. Any exceptions which are granted to students under 18 must be accompanied by a written endorsement of exception from the parent or legal guardian of the student.

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

CONTRACTS AND FEES FOR RESIDENTIAL SERVICES

The residence halls are financially self-supported. Room and board fees reflect the actual cost of operation and are established by the University's Board of Trustees. The 1973-74 rate for room and board is \$1290 for the academic year. Special options such as: room only (\$810), single rooms (additional \$250), and cooperative housing (\$650) are available to upperclass students. If a student signs a housing contract prior to or during the Fall Semester, that contract is binding for both the Fall and Winter Semesters. If the contract is signed during the Winter Semester or Spring or Summer Session, it is binding for the single semester or session. The room and board fee is payable at registration each semester or in four payments, the first due at registration and the second, third and fourth due the first day of each of the following three months. If a student withdraws from the University, housing fees are refunded on a pro-rated basis.

APPLICATION FOR RESIDENCE

New students should request a housing prepayment reservation through the Admissions Office. A prepayment of \$25 must accompany this request. This prepayment is credited to the first housing payment. Upon a student's acceptance at Oakland, his or her reservation will be processed by the Residence Halls Assignment Office. Notification of assignment will be given approximately two weeks before the beginning of each semester. Returning students may renew housing contracts through the Residence Halls Assignment Office, 159 Vandenberg Hall.

CHECK-IN

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



STUDENT SERVICES

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

Division of Student Affairs

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

Because services and agencies of the Division of Student Affairs relate to many areas and aspects of student life, reference to them is spread over many sections of this catalog. Scan the colored section of the catalog or refer to the index.

OFFICE OF SPECIAL PROGRAMS

The Office of Special Programs is designed to provide academic support for the student who needs special assistance for a successful academic experience at Oakland. This Office is staffed with tutors, professionally trained counselors, and curriculum innovators.

The office administers three centers which are located in Vandenberg Hall. Joint responsibility for these centers lies with the Department of Learning Skills and the Office of Special Programs.

Skill Development Center

The Skill Development Center located in 155 Vandenberg Hall provides Oakland students with scheduled support seminars and tutorial assistance in an effort to maximize the students' chances for success. This particularized support is provided to complement and supplement the regular services of the University. Although the center was initially designed to meet the needs of students assigned to the Office of Special Programs at the time of admission, it is open to all students in the University. To achieve the goal of assisting students to enjoy successful academic experiences, individual and group counseling is provided. The counselors deal with personal-social problems and career-oriented advising to affect positively the attitude of students to education at Oakland University.

A new dimension of the Skill Development Center is the housing of numerous reference materials which can be checked out by students and returned for continued use with no cost to students.

Reading Center

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

Writing Center

The Writing Center is designed to assist students in improving their writing competence. Members of the Learning Skills department and a staff of graduate and undergraduate assistants accept students who enroll voluntarily in the Center and students who are referred by learning skills instructors or academic advisers. Students in the latter category are enrolled in Learning Skills 075, in which "S" (Satisfactory) or "N" (No grade) grades are awarded.

HEALTH CENTER AND STUDENT INSURANCE

The Graham Health Center consists of an out-patient department staffed by full-time physicians and nurses, fully equipped emergency room, physical therapy department, and

laboratory. The facility offers emergency treatment, as well as diagnosis and treatment of both acute and chronic medical problems occurring within the University population. The Center is equipped to provide physical therapy, medication, and a number of laboratory analyses.

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

PSYCHOLOGICAL SERVICES

The Office of Psychological Services is staffed with clinical psychologists who provide specialized counseling, consultation, and psychotherapy to Oakland students with personal and interpersonal problems. Use of the service is voluntary and is available by appointment at a minimal charge to the student. All personal material discussed is held **strictly** confidential and does not become part of the student's academic record.

TODDLER PROGRAM AND CHILD CARE CENTER

Students who have children of toddler age — 15 months to 2½ years — may enroll them in the Oakland Toddler Program. Complete information may be obtained from the Early Childhood Education office or at the Toddler Program facility, located in the child care complex, located at the corner of Adams and Butler Roads.

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

CAREER ADVISING AND PLACEMENT OFFICE

The Career Advising and Placement Office provides counseling services to graduating seniors interested in career-oriented employment in industry, business, government service, teaching, and other professional fields. It also provides seniors with an opportunity to have interviews with representatives of many companies, government agencies, and school systems who regularly recruit on campus.

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

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

FOREIGN STUDENT OFFICE

To date, Oakland University has in attendance about fifty international students both undergraduate and graduate. The Foreign Student Office was created specifically as a service to such students and is located in 127 North Foundation Hall. It is a center of information for questions concerning immigration requirements; personal, academic, and financial counseling; off-campus visits; and participation in community programs.

INFORMATION ON STUDY ABROAD

In addition to information on study abroad supplied by individual departments, the Study Abroad Office, 418 Wilson Hall, keeps a file on study and travel opportunities outside the United States for United States nationals. The Study Abroad Counselor has a library of information regarding travel, independent study, study programs offered by other accredited institutions, graduate and undergraduate programs, programs in English, and financial assistance for study abroad. Students considering spending time studying abroad are advised to begin gathering information as early as they can, since a great deal of correspondence is involved.

VETERANS' BENEFITS

Students eligible to attend the University under the various Public Laws providing veterans' benefits should keep in close 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. Counseling and other supportive services are offered by the Veteran's counselor in 153 North Foundation Hall.

STUDENT LIFE

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

STUDENT ORGANIZATIONS

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

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

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

STUDENT GOVERNMENT

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

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

COMMUTER SERVICES

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

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

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

DRAMA

The Student Enterprise Theatre (S.E.T.) is located at the south end of the campus in the Barn Theatre which was designed and constructed by students for students, faculty and staff. S.E.T. produces one major show per semester and encourages student, faculty and staff participation in all aspects of production. Recent productions include Kopit's **Indians**,

Peter Weiss' **Marat/Sade**, **Alice in Wonderland** with an original student score, **Stop the World — I Want to Get Off**, and **J.B. S.E.T.** enables students, faculty and staff to have experiences in acting, direction, production, set design and construction, lighting and costuming. Previous experience is not required to work with the organization. For information, please call 377-2245.

FILMS

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

LECTURES

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

MUSIC

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

STUDENT VOLUNTEER PROJECTS

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

STUDENT PUBLICATIONS

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

THE PHYSICAL EDUCATION— ATHLETIC PROGRAM

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

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

The facilities, equipment and supplies are available about fourteen hours a day. Individuals, couples and coed groups have the use of a variety of sports equipment in the various rooms of the Sports and Recreation Building or on the adjacent tennis courts and playfields.

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

Club sports are sponsored in track, wrestling and ice hockey. Students interested in club sports compete with students from various colleges and universities as well as community groups.

Students interested in intercollegiate sports competition are encouraged to compete in regularly scheduled intercollegiate contests in cross country, soccer, basketball, swimming, baseball, golf and tennis. Oakland University competes with schools in the Great Lakes Intercollegiate Athletic Conference of which we are a member, and other schools in Michigan, Indiana, Ohio, New York, Wisconsin, Illinois and Canada. Oakland is also a member of the NCAA College Division.

Students interested in credit Physical Education classes should look under Education Department.

OAKLAND CENTER

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

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

MEADOW BROOK MUSIC FESTIVAL

The Meadow Brook Music Festival, held each summer in the Howard C. Baldwin Pavilion at Oakland University, is now internationally recognized. The Detroit Symphony Orchestra is in residence on campus for eight weeks of concerts. Last year, the Orchestra was conducted by a prestigious array of internationally known guest conductors, including Sixten Ehrling, Andre Previn, Aldo Ceccato, Edo de Waart, Kazimierz Kord, and Hiroyuki Iwaki. Outstanding guest soloists included

Van Cliburn, James McCracken and Sandra Warfield, John Browning, Leonard Pennario, Lawrence Foster, Alegria Arce, Radu Lupu, Ruggiero Ricci, Misha Dichter, and Philippe Entremont. A popular favorite is the Sunday "Pops" series of concerts, which last year featured Peter Nero, Arthur Fiedler, Andre Kostelanetz, Mitch Miller, Morton Gould, Carlos Montoya, Richard Hayman, and Victor Borge.

The Music Festival scheduled three performances by The National Ballet of Washington, D. C., performing spectacular new versions of "Sleeping Beauty," "Cinderella," and "Graduation Ball."

Last summer's jazz and folk concerts included solo artists Ella Fitzgerald, Rick Nelson, Helen Reddy, Bobby Goldsboro, Sarah Vaughan, Mac Davis, Mary Travers, Patti Page, John Sebastian, and Pete Fountain. Duke Ellington and his Orchestra, the Benny Goodman Sextet, Preservation Hall Jazz Band, Glenn Miller featuring Tex Beneke, Ray Eberle, and the Modernaires with Paula Kelly were groups that appeared last year.

MEADOW BROOK THEATRE

The Meadow Brook Theatre, in residence on The University campus, is a professional regional theatre, which draws distinguished British, Canadian, and American actors to Southeast Michigan. Terence Kilburn, its artistic director, has long been internationally known as an actor in motion pictures and on the stage in Los Angeles, on Broadway, and in London. He has also been a successful director of stage plays in Los Angeles and London.

During its highly successful past season, the Meadow Brook Theatre staged classics of British and American drama, a range of plays by European dramatists, and premieres of some contemporary plays. During the previous season, Meadow Brook's productions included works by Moliere, Sean O'Casey, Clifford Odets, Luigi Pirandello and William Gibson. The current season, 1973-74, features plays by Shakespeare, Tennessee Williams, Carson McCullers, and Agatha Christie, as well as the premiere of a new adaptation by Charles Nolte of Sophocles "Oedipus Rex." The Theatre season is always a highlight in entertainment at Oakland University and the whole metropolitan Detroit area.

MEADOW BROOK ART GALLERY

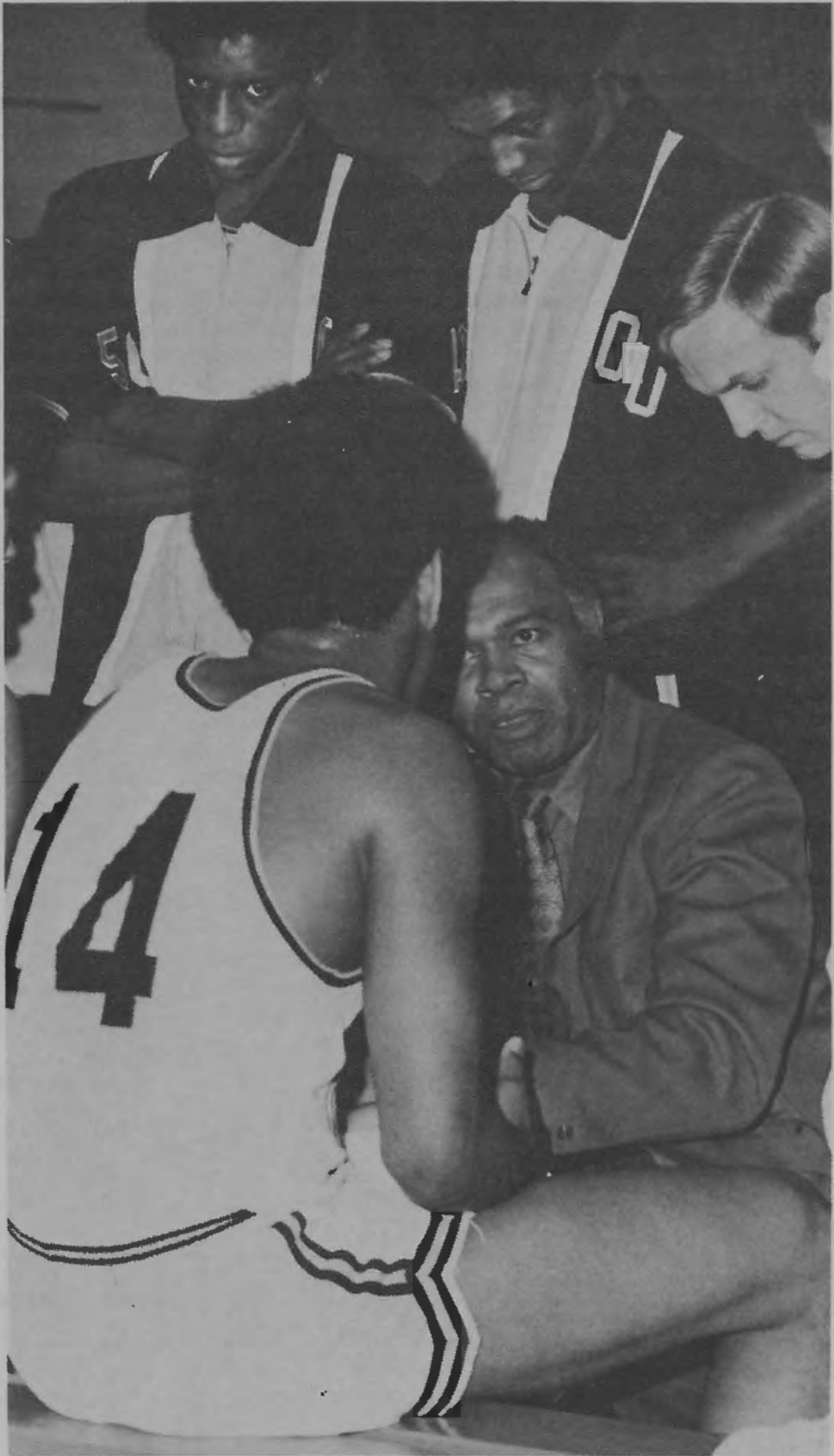
The Meadow Brook Art Gallery presents exhibitions which foster artistic sensitivity and high achievement in various

fields of visual art. The Gallery's changing exhibitions and the permanent collection stress contemporary American and European art, art of the Far East, as well as the art of Africa, Oceania, and pre-Columbian America. Showings of works by faculty members and students of the Department of Art and Art History are also presented. The scope of these activities vividly illustrates the distinctive capabilities of the University's dynamic programs in Cultural Affairs.

Many elements contribute to establishing Meadow Brook Art Gallery as a cultural landmark. Exhibitions have included: "A Point of View" & Contemporary Art from the Richard Brown Baker Collection, "Personal Preference" & Paintings and Sculptures from the collection of Mr. and Mrs. S. Brooks Barron, and "Art of the Decade: 1960-1970" and "Form, Space, Energy" & both showing contemporary paintings and sculptures from the collections of Greater Detroit; "American Realism, Post-Pop"; and "Chinese Fan Paintings from the collection of Chan Yee-pong" and "Japanese Ink Painting of the Edo Period" from the collection of Professor Tani of Tokyo. Previously, the Gallery has exhibited African art drawn principally from gifts to Oakland University by former Governor G. Mennen Williams and by Mr. and Mrs. Ernst Anspach of New York, and has exhibited Melanesian art loaned from the University Museum of Philadelphia.

In 1973-74 season, the Meadow Brook Art Gallery will present: "Unintended Art in Industry" — assemblage of various objects of beautiful and dynamic forms, structures and colors which result from processes completely different of context and purpose; "Rajasthani Temple Hangings of the Krishna Cult" — temple hangings executed during the last three centuries in the province of Rajasthan, India.

These exhibitions are supported by the participation of the Department of Art and Art History, Department of Sociology and Anthropology and the Area Studies Program of Oakland University, private and public grants, and the Meadow Brook Gallery Associates.



CAMPUS BUILDINGS

Many changes in building use have been made in 1973 to accommodate continuing growth at Oakland University.

Although no new construction is evident, State fundings for Classroom-Office Building II and Public Safety and Service Building are forecast soon.

Location for COB II is proposed east of Oakland Center. Public Safety and Service Building location is intended at the main entrance to campus off Squirrel Road and directly west of Hannah Hall of Science (see map at front of catalog).

North Foundation Hall (1959)

Gift of Mr. and Mrs. Alfred G. Wilson. Office of the President; Offices of the Vice Presidents for Public Affairs, for Student Affairs, for Business Affairs; Office of Assistant President for Campus Development; Office of the Dean of Student Affairs and staff offices; Office of Inventory and Property Control; classroom; Personnel Office; Office of the Registrar; Physical Plant Office; Space Utilization Office; Business Offices; Telephone Office; Office of University Relations; University Services.

South Foundation Hall (1959)

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

Oakland Center (1959)

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

Kresge Library (1961)

Gift of the Kresge Foundation. Library collections, offices, and services: Instructional Materials Center.

John Hannah Hall of Sciences (1961)

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

Sports and Recreation Building (1963)

Self-liquidating funds. Faculty and staff offices (Physical Education); gymnasium; swimming pool; handball and squash courts.

Charles F. Kettering Magnetics Laboratory (1963)

Gift of the Kettering Foundation. Facilities of the Magnetics Laboratory.

Oakland University Observatory.

Under construction; to be located near the Kettering Magnetics Laboratory.

Howard C. Baldwin Memorial Pavilion (1964)

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

Lula C. Wilson Memorial Concert Shell (1964)

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

Trumbull Terrace (1965)

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

Matilda R. Wilson Hall (1966)

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

Dodge Hall of Engineering (1968)

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

Graham Health Center (1968) 8)

Self-liquidating funds. Health services.

Paula and Woody Varner Hall (1970)

Funds appropriated by the State of Michigan and a federal grant. Classrooms and recital hall. Office of the Dean, College of Arts and Sciences; Office of the Dean, School of Education; faculty and staff offices (Academy of Dramatic Art, Education, Music, Sociology and Anthropology); Performing Arts

Library; Audio Visual Department Office; Office of the Provost; Office of the Vice President for Academic Affairs.

Central Heating Plant (1971)

Funds appropriated by the State of Michigan.

Meadow Brook Hall

Gift of Mr. and Mrs. Alfred G. Wilson. Office of the Dean, Division of Continuing Education.

Implement Shed

Motor Pool Office.

Gate House

Public Safety Department; Credit Union.

Dodge Farm House

Offices of Continuum Center for Adult Counseling and Leadership Training.

RESIDENCE HALLS

Fitzgerald House (1962)

Gift of Mr. and Mrs. Harold A. Fitzgerald, and self-liquidating funds.

Anibal House (1962)

Gift of Mr. and Mrs. B. H. Anibal, and self-liquidating funds.

Pryale House (1963)

Gift of Mr. and Mrs. Harry M. Pryale, and self-liquidating funds.

Hill House (1964)

Gift of Mr. O. E. Hunt.

Van Wagoner Hall (1965)

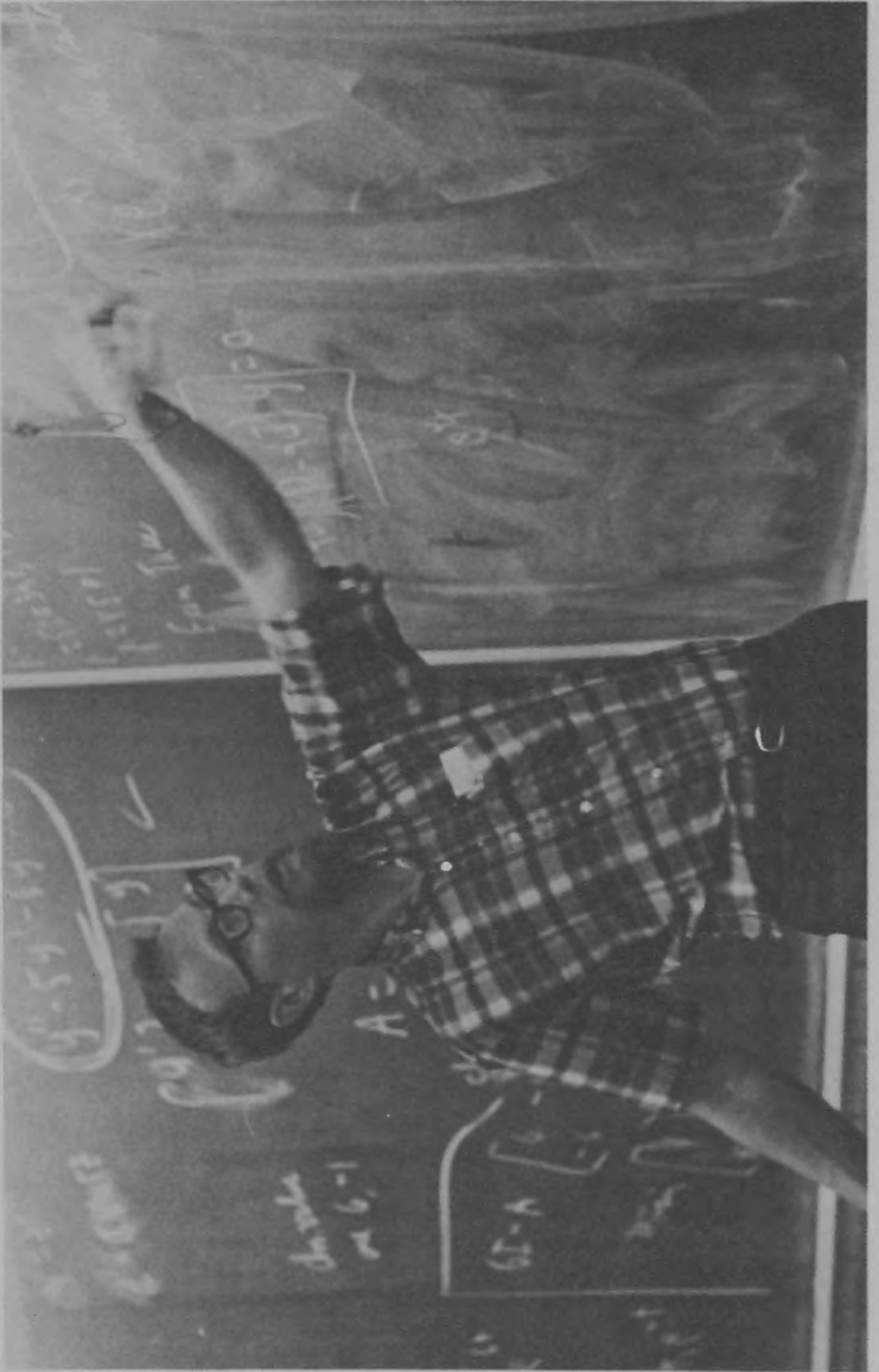
Self-liquidating funds.

Vandenberg Hall (1966)

Self-liquidating funds. Food Services Offices; New-Charter College Offices and Labs; Offices of the Dean, Faculty and Staff: Economics & Management; Faculty and Staff Offices: Mathematics; Faculty and Staff Offices: History & Area Studies; Faculty and Staff Offices: Learning Skills; Skill Development Center and Offices.

Hamlin Hall (1968)

Self-liquidating funds. Residence Halls Offices; Freshman Residence Hall.



COLLEGE OF ARTS & SCIENCES

OFFICE OF THE DEAN

REUBEN TORCH, *Dean*

ROBERT E. SIMMONS, *Associate Dean for Instruction*

DEPARTMENTS

ART AND ART HISTORY

CARL F. BARNES, JR., *Chairman*

BIOLOGICAL SCIENCES

NALIN UNAKAR, *Acting Chairman*

CHEMISTRY

PAUL TOMBOULIAN, *Chairman*

CLASSICAL LANGUAGES AND LITERATURES

STEPHEN C. SHUCARD, *Chairman*

ECONOMICS

ELEFThERIOS N. BOTSAS, *Chairman*

ENGLISH

JOSEPH W. DE MENT, *Chairman*

HISTORY

MELVIN CHERNO, *Chairman*

LINGUISTICS

WILLIAM SCHWAB, *Chairman*

MATHEMATICS

GEORGE F. FEEMAN, *Chairman*

MODERN LANGUAGES AND LITERATURES

NORMAN SUSSKIND, *Chairman*

MUSIC

RAYNOLD L. ALLVIN, *Acting Chairman*

PHILOSOPHY

RICHARD J. BURKE, *Chairman*

RICHARD W. BROOKS, *Acting Chairman, Fall Semester 1973*

PHYSICS

ABRAHAM R. LIBOFF, *Chairman*

POLITICAL SCIENCE

EDWARD J. HEUBEL, *Chairman*

PSYCHOLOGY

BOAZ KAHANA, *Chairman*

SOCIOLOGY AND ANTHROPOLOGY

NAHUM Z. MEDALIA, *Chairman*

SPEECH COMMUNICATION

ADELINE HIRSCHFELD-MEDALIA, *Chairman*

INTERDEPARTMENTS

AREA STUDIES PROGRAM

ROBERT C. HOWES, *Chairman*

HEALTH SCIENCES PROGRAMS

MOON JAE PAK, *Chairman*

COMPUTER AND INFORMATION SCIENCE

DAVID E. BODDY, *Chairman*

ENVIRONMENTAL STUDIES

PAUL TOMBOULIAN, *Chairman*

HEALTH-MEDICAL BEHAVIORAL SCIENCE

CARL R. VANN, *Chairman*

JOURNALISM

(see Department of Speech Communication)

JUDAIC STUDIES

PETER G. EVARTS, *Chairman*

LINGUISTICS

WILLIAM SCHWAB, *Chairman*

PREPROFESSIONAL STUDIES IN MEDICINE AND DENTISTRY

MOON JAE PAK, *Chairman*

RELIGIOUS STUDIES

RICHARD J. BURKE, *Chairman*

SOCIAL JUSTICE AND CORRECTIONS

JESSE R. PITTS, *Chairman*

SPEECH COMMUNICATION

ADELINE HIRSCHFELD-MEDALIA, *Chairman*

THEATRE ARTS

(see Department of Speech Communication)

SOCIAL STUDIES PROGRAM

ROBERT G. PAYNE, *Director*

PRE-LAW STUDIES

THOMAS W. CHURCH, *Advisor*

COMMITTEES

The College of Arts and Sciences offers instruction leading to the degrees of Bachelor of Arts and Bachelor of Science and to the degrees of Master of Arts and Master of Science. Jointly with the School of Education it offers instruction leading to the degree of Master of Arts in Teaching.

STANDING COMMITTEE OF THE FACULTY OF ARTS AND SCIENCES

Executive Committee

REUBEN TORCH, <i>Chairman</i>	NIGEL HAMPTON
RICHARD BURKE	JAMES MCKAY
DAVID DI CHIERA	VIRGINIA O'LEARY
LEONARDAS GERULAITIS	RALPH SCHILLACE
RENATE GERULAITIS	

Committee on Instruction

ROY KOTYNEK, <i>Chairman</i>	CARL BARNES
MANUEL PIERSON (<i>ex officio</i>)	PETER EVARTS
LOWELL RUGGLES (<i>ex officio</i>)	LOUIS J. NACHMAN
ROBERT SIMMONS (<i>ex officio</i>)	IRVING TORGOFF
SHELDON APPLETON	

STANDING COMMITTEES OF THE COLLEGE OF ARTS AND SCIENCES

Committee on Appointments and Promotions

REUBEN TORCH, <i>Chairman</i>	ROBERT FACKO
MELVIN CHERNO	CLIFFORD HARDING
PETER EVARTS	ROBERT HOWES



UNDERGRADUATE CURRICULUM IN ARTS AND SCIENCES

GENERAL REQUIREMENTS FOR THE DEGREES OF BACHELOR OF ARTS AND BACHELOR OF SCIENCE

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

I. The Residence Requirement

In order to graduate with the degree of Bachelor of Arts or Bachelor of Science, the student must;

A. Have completed 124 credits. Bachelor of Science degrees in technological programs (Environmental Health Technology, Medical Technology and Medical Physics) require completion of 128 credits (see p. 241).

B. Have completed at least 32 of these credits at Oakland University, of which at least 16 credits must be in his or her elected major.

C. Be registered at Oakland University for at least 8 credits during the semester in which the degree is conferred.

D. Have a cumulative grade-point-average of at least 2.0. (Exceptions to the residence requirement may be obtained only by successful petition to the Dean of the College of Arts and Sciences.)

E. Be in substantial compliance with all legal curricular requirements.

II. Requirement of Proficiency Certificate in English Composition

A certificate of proficiency may be awarded by the Department of Learning Skills upon satisfactory achievement in an examination at the time of entrance into the University. Any student unable to meet the required proficiency level may enroll in one of several Learning Skills courses to develop the writing skill necessary for certification. (For further details on Learning Skills courses, see p. 357.)

III. The General Education Requirement

In order to graduate with the degree of Bachelor of Arts or Bachelor of Science, the student must:

A. Satisfy the distribution requirement by completing 32 credits or more (as specified by his or her chosen major) in appropriate departmental courses or in University courses

or in equivalent programs in Allport College, New-Charter College.

B. Have completed at least 8 elective credits.

IV. Requirement of an Independent Concentration or an Elected Major

In order to graduate, the student must have fulfilled all requirements for an independent concentration or an elected major. (For details concerning the independent concentration see p. 56.) The student electing a major must have at least a 2.0 average in the courses required for the major. (For further details concerning the major, see p. 58 and entries under particular departments.)

THE INSTRUCTIONAL PROGRAM

The instructional program of each student seeking to fulfill the general requirements for the degree of Bachelor of Arts or Bachelor of Science has two components; either general education distribution requirement and an independent concentration or general education distribution requirement and a major.

- I. General Education Requirement
- II. Independent Concentration
- III. The Major

1. General Education Distribution Requirement

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

The academic departments and programs are arranged into six field groups, and students are expected to offer course work in at least four out of the five field groups outside their major field. The six field groups are:

- | | |
|---------------------|--------------------|
| A. Symbolic Systems | D. Social Science |
| B. Letters | E. Area Studies |
| C. Arts | F. Natural Science |

The distribution requirement consists of 32 credits. Each student must complete a minimum of three credits in at least four of the five fields outside the major.

(It is within the authority of the major department to require courses in all fields as corequisites to major work.) No more than twelve credits in any one field will be counted toward fulfilling the distribution requirement.

Any departmental or program course or courses may be used to satisfy the distribution requirement in the appropriate field group. Courses bearing the UC designation may be used to satisfy the distribution requirement in any appropriate field group.

(The University Courses are non-departmental and general education courses which may be used to satisfy the general education requirement in the College of Arts and Sciences. For further information on these courses and the field distribution requirements they satisfy, see p. 365.)

The distribution requirement for the baccalaureate in the College of Arts and Sciences may also be satisfied by enrollment in, and completion of, the programs offered by Allport College, or New-Charter College. (For information on these programs, see pp. 349 & 359.)

The courses satisfying requirements within field groups and the departments and programs offering courses within the groups are as follows:

1. Field Group A. **Symbolic Systems**

*Classics (courses marked GRK or LTN 114-115, 214-215; CLS 310)

Computer and Information Science (courses marked CIS)

Linguistics (courses marked LIN)

Mathematics (courses marked MTH)

Modern Languages and Literatures (courses marked ML, CHE, FRH, GRM, HBR, HIUR, IT, POR, RUS, SPN, SWA emphasizing grammar, composition and conversation)

SCN 207 Semantics (crosslisted with LIN 207)

2. Field Group B. **Letters**

Classics (courses marked CLS; all literature courses marked LTN or GRK, excluding 114-115, 214-215. See Symbolic Systems.)

English (courses marked ENG)

History (courses marked HST)

Philosophy and Religion (courses marked PHL or REL)

Modern Languages and Literatures (CHE, FRH, GRM, RUS, SPN, TCL)

(Only courses in **literature** either in translation or in the foreign language. Courses in literature offered by the Modern Language Department numbered 285, 286, 287 or having the letters MLT are in **English**. The readings are translations. The courses satisfy the distribution requirement in Letters. Other language courses count in the Symbolic Systems group.)

SCN 310 Philosophy of Rhetoric (cross-listed with PHL 365)

***Special Note:** The Classics Department will not permit students to use only the first semester of an introductory language course (GRK or LTN 114) to satisfy the symbolic systems requirement. Students must either complete GRK or LTN 115 or show equivalent competence by means of a proficiency test.

3. Field Group C. Arts

Art (Courses marked AH—Art History; SA—Studio Art)

Music (Courses marked MUS)

Theatre (UC 045 **Introduction to Theatre**; SCN 161, 162, 261, 262, 271, 361, 363, 364, 365)

4. Field Group D. Social Science

Economics (courses marked ECN)

Political Science (courses marked PS)

Psychology (courses marked PSY)

Sociology/Anthropology (courses marked SOC or AN)

ED 244, 245

ENV 151

Speech Communication (courses marked SCN except SCN 207, see Symbolic Systems; and SCN 310, see Letters.)

Social Studies 100 **Introduction to Social Science**

5. Field Group E. Area Studies

The Committee on Area Studies sponsors:

AS 062 Introduction to China

AS 063 Introduction to Japan

AS 064 Introduction to Africa

AS 066 Introduction to India

AS 068 Introduction to Latin America

AS 070 Introduction to the Slavic World

(The Committee will also designate other courses that may count in this group.)

6. Field Group F. Natural Science

Biology (courses marked BIO)

Chemistry (courses marked CHM)

Physics (courses marked PHY)

Environmental Studies (courses marked ENV, except ENV 151. See Social Sciences.)

Science (courses marked SCI)

Engineering (all courses marked EGR except 005, 108, 111)

II. Independent Concentration.

(See also paragraph IV of the General Degree Requirements.) An independent concentration of courses may be offered in lieu of a customary major in partial fulfillment of the requirements for the Bachelor of Arts degree. The regulations governing such an independent concentration in the College of Arts and Sciences are as follows:

A. That the credits in an independent concentration be not less than 40 nor more than 60, such credits to be in courses above the introductory level.

B. That these 40 to 60 credits must be in an organized program of study exhibiting sufficient coherence and depth to warrant being offered in lieu of a standard concentration or major in partial fulfillment of the requirements for the Bachelor of Arts degree.

C. That this program shall be developed in consultation with an adviser who has authority to recommend its approval by the Committee on Instruction and to attest to its satisfactory completion for graduation purposes.

D. That the Committee on Instruction (or a duly constituted committee established for the purpose) approve all such programs (and subsequent modifications) and sponsor students in independent concentrations for the degree.

E. That the Committee on Instruction be charged to develop procedures concerning independent concentrations.

F. That students electing to offer an independent concentration in partial fulfillment of the requirements for the Bachelor of Arts degree must fulfill all requirements for the degree other than the requirement of an elected major.

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

The specially authorized advisers for the independent concentration are:

Professor Charles Broh (English)

Professor F. James Clatworthy (Education and New-Charter College)

Professor Steven Miller (Chemistry)

Professor James Ozinga (Political Science)

Professor Philip Singer (Behavioral Science and Anthropology, see Allport College)

Professor Robert Stern (Chemistry and New-Charter College)

Each student is expected to present to his or her adviser a reasoned statement of motives for electing an independent concentration and to propose a course program that he or she feels will help him or her achieve his or her educational objectives. The adviser will exercise his judgment concerning the educational objectives and academic soundness of the proposed course of studies. He will help the student refine his or her proposal and guarantee its worth as a substitute for a major. This program is to be submitted to the Committee on Instruction, which may approve, disapprove, or modify the proposal.

Students are encouraged to use the Fall Semester to plan their programs in consultation with authorized advisers, and

to present their programs to the Committee on Instruction by November 15 for action by the Committee prior to the beginning of the Winter Semester.

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

III. The Major

(See also paragraph III of the General Degree Requirements.) Each student seeking candidacy for the degree of Bachelor of Arts or Bachelor of Science who does not offer an independent concentration must choose a major and fulfill the specified requirements as prescribed by the relevant department or, in certain cases, the relevant interdepartmental committee.

A. The College of Arts and Sciences offers the following liberal arts majors. (For more detailed information, see material under each department.)

- | | |
|---------------------------------------|---|
| 1. Art History | 16. Russian Language and Civilization |
| 2. Studio Art | 17. Spanish |
| 3. Biology | 18. Latin American Languages and Civilization |
| 4. Chemistry | 19. Music Theory and Composition |
| 5. Classical Languages | 20. Music History and Literature |
| 6. Latin | 21. Philosophy |
| 7. Economics | 22. Physics |
| 8. English | 23. Political Science |
| 9. History | 24. Psychology |
| 10. Linguistics | 25. Sociology |
| 11. Mathematics | 26. Anthropology |
| 12. Chinese Language and Civilization | 27. Sociology and Anthropology |
| 13. French | 28. Speech Communications |
| 14. German | |
| 15. Russian | |

B. The College of Arts and Sciences offers the Bachelor of Science degree in the following programs:

- Environmental Health Technology
- Medical Technology
- Medical Physics

For further details on these non-departmental majors, see p. 241.

C. The College of Arts and Sciences offers secondary teaching majors under the auspices of the following departments. (For detailed information see material under each departmental entry and p. 285 of the section of this catalog devoted to the School of Education.)

- | | |
|--|---|
| 1. Biological Sciences | 6. Mathematics |
| 2. Chemistry | 7. Modern Languages
and Literatures |
| 3. Classical Languages
and Literatures | Secondary teaching majors
in French, German, Russian,
and Spanish only. |
| Secondary teaching major
in Latin only. | 8. Music |
| 4. English | 9. Physics |
| 5. History | |

D. Minors are not required by the General Degree Requirements for the degree of Bachelor of Arts. However, they are required of prospective secondary school teachers seeking certification by the Department of Education of the State of Michigan. Consequently, the following departments and interdepartmental groups make available minor programs for each students. (For more detailed information see material under each departmental entry and p. 285 of the section of this catalog devoted to the School of Education.)

- | | |
|------------------------|--|
| 1. Art | 7. Modern Languages
and Literatures |
| 2. Biological Sciences | 8. Physics |
| 3. Chemistry | 9. Social Sciences |
| 4. English | 10. Science |
| 5. History | 11. Speech Communication |
| 6. Mathematics | |

E. The College of Arts and Sciences offers an interdepartmental secondary teaching major under the auspices of the Committee on the Social Studies Program. This Committee also makes available a secondary teaching minor in social studies. (See pp. 252 & 285.)

F. The College offers several standard concentrations in special programs which are pursued in conjunction with a departmental major. These concentrations are:

1. Computer and Information Sciences (see p. 244)
2. East Asian Studies (see p. 234)
3. Environmental Studies (see p. 245)
4. Health-Medical Behavioral Sciences (see p. 246)
5. Journalism (see p. 246)
6. Judaic Studies (see p. 246)
7. Linguistics (see p. 247)
8. Preprofessional Studies in Medicine and Dentistry (see p. 248)
9. Religious Studies (see p. 248)
10. Slavic Studies (see p. 236)
11. Social Justice and Corrections (see p. 251)
12. South Asian Studies (see p. 235)
13. Speech Communication (see p. 252)
14. Theatre Arts (see p. 252)

G. The College of Arts and Sciences through several departments, through Allport College and New-Charter College offers various programs for off-campus study. (See p. 254.)

H. The College offers work in science for elementary education majors. (See p. 257.)

MAJOR STANDING AND GENERAL REQUIREMENTS FOR MAJORS

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

MAJOR DEPARTMENTS OF INSTRUCTION AND COURSES

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

REGULATIONS GOVERNING COURSES

1. All courses are assigned four credits unless otherwise specified.
2. A course sequence joined by a hyphen (e.g., GRK 114-115) must be taken in the order indicated. The first course in such a sequence is regarded as a prerequisite to that following. A department has, however, the right to waive these and any other prerequisite course requirements.
3. Course numbers separated by commas (e.g., HST 214, 215) indicate related courses, which may be taken in any order. Departmental or program requirements may govern the order in certain cases, however.
4. With the exception of University courses, a special series of course numbers such as 000 to 099 are reserved for courses specially designed to enrich academic skills. (Not more than 16 credit hours in such courses and in tutorial work may be presented toward graduation requirements.) University Courses and courses numbered 100 to 299 are introductory or intermediate undergraduate courses. Courses numbered 300 to 499 are advanced courses primarily for undergraduates. Courses numbered 500 and above are primarily for graduate students.
5. The Registrar reserves the right to cancel any course in which there is insufficient registration.

DEPARTMENT OF ART AND ART HISTORY

CHAIRMAN: CARL F. BARNES, JR.

PROFESSORS: Carl F. Barnes, Jr. (Art History); John B. Cameron (Art History)

ASSOCIATE PROFESSORS: John L. Beardman (Studio Art)

ASSISTANT PROFESSORS: P. Michael Brakke (Studio Art); Charles E. Brownell, Jr. (Art History); Ralph E. Glenn (Art History); Cecilia F. Klein (Art History); Alvern A. Lostetter, Jr. (Studio Art); Lawrence S. Rittenberg (Studio Art)

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

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

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

The department strengthens its program of instruction through group visits to the Detroit Institute of Arts and other public and private collections in the area, by the visits of artists who offer criticism of student work, and by guest lecturers. It also presents an annual exhibition in the Meadow Brook Art Gallery of the best works by studio art majors and non-majors.

In 1971 an Archives of Michigan Architecture was established in the department. This research facility, at present

limited in scope and materials, will expand to make available to students original documentation concerning the architectural heritage of Michigan and especially of the southeastern area of the state. Students enrolled in AH 350 and AH 450 are assigned projects related to these archives.

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

1. Requirement for the Liberal Arts Major in Art History

AH 100, AH 262, AH 350, AH 490 and six additional departmental courses in AH, a total of 40 credits, are required for the major.

Required corequisites for the art history major are SA 100 and SA 101.

There is no language requirement for the art history major. However, majors who anticipate doing graduate work in art history are advised that most graduate programs require proof of reading competency in one or more foreign languages, generally German and/or French.

ART HISTORY COURSES

All AH courses are for one semester and carry four credits. AH 100-level and 200-level courses have no prerequisites. AH 300-level courses have AH 100 as the prerequisite. AH 490 is a seminar and has either AH 100 and eight additional credits of AH or AH 100 or AH 102 or AH 104 and permission of the instructor as prerequisites.

Art History 100

Introduction to European Art

History and analysis of the visual arts of western Europe. May not be taken for credit by students who have passed UC 047.

Art History 102

Introduction to African, Oceanic, and American Indian Art

History and analysis of the visual arts of the indigenous peoples of Africa, the Pacific basin, and the Americas.

Art History 104

Introduction to Asian Art

History and analysis of the visual arts of Asia, especially those of India, China, and Japan. May not be taken for credit by students who have passed AH 300.

Art History 200 African Art
The arts of the non-technocratic peoples of West, Central, and East Africa.

Art History 202 Oceanic Art
The arts of the non-technocratic peoples of the Pacific basin.

Art History 204 Pre-Columbian and American Indian Art

Art of the Indians of South, Central, and North America.

Art History 262 Modern Art
The development of painting and sculpture in Europe in the 19th and first half of the 20th century and in the United States after World War I.

Art History 300 Chinese Art
The history of Chinese artistic expression in painting, sculpture, ceramics, and bronze from the Shang Dynasty, ca. 1550 B.C., to the founding of the Chinese Republic, A.D. 1912. May not be taken for credit by students who have passed AH 400.

Art History 301 Japanese Art
The architecture, sculpture, and painting of Japan from the 5th to the 19th century A.D.

Art History 304 Japanese Painting
The major styles of Japanese painting of the Heian period of the 10th through the 12th century A.D. through the Zen Buddhist artists, and the Kano and Nanga painters of the Edo period, A.D. 1615-1868.

Art History 312 Near — Eastern and Greek Art
The development of architecture, sculpture, and painting in the pre-Hellenic Aegean civilizations and in classical Greece from 3500 B.C. until the period of Roman domination in the Mediterranean area, ca. 100 B.C.

Art History 314 Etruscan and Roman Art
The development of architecture, sculpture, and painting in Etruria and the Roman Republic and Empire from 600 B.C. until the relocation of the capital of Rome to Constantinople in A.D. 330.

Art History 320 Byzantine Art
The development of architecture, sculpture, and painting in the Eastern Roman Empire from A.D. 330 until the Turkish conquest of Constantinople in A.D. 1453.

Art History 322 Early Medieval and Romanesque Art
The development of architecture, sculpture, and painting in western Europe from A.D. 330 through the apex of Christian monasticism ca. A.D. 1150

Art History 326 Gothic Art
The development of architecture, sculpture, and painting in Western Europe from ca. A.D. 1150 through the period of the crusades and medieval urbanism, ca. A.D. 1400.

Art History 330 Renaissance art
The architecture, sculpture, and painting of western Europe during the Renaissance and Reformation from A.D. 1400 to A.D. 1600.

Art History 340**Baroque Art**

The architecture, sculpture, and painting of western Europe and colonial South America during the period of absolute monarchy and the Counter Reformation from A.D. 1600 to A.D. 1800.

Art History 352**English Art**

The Renaissance tradition in the architecture, sculpture, and painting of England from its initial appearance at the court of Henry VIII in A.D. 1530 through its transformation and dissolution in the 1830's.

Art History 350**American Art**

The Anglo-European traditions in the architecture, sculpture, and painting of the United States from the beginning of artistic activity in the Atlantic coastal colonies, ca. A.D. 1630, through the emergence of the mature artistry and international awareness of the late 19th century.

Art History 362**Modern Architecture and Urban Design**

The development of architecture and urban planning in Europe and the United States since World War I.

Art History 450**Michigan Architecture**

The domestic, public, and religious architecture of Michigan and the former Northwest Territories from A.D. 1701 to the present. Special Prerequisite: AH 350.

Art History 490**Special Problems in Art History**

Seminar in specific subject areas (e.g., Medieval, Renaissance, Modern, Oriental) or approaches (e.g., Criticism, Historiography) of art history. The specific subject will be listed in the course schedule. May be taken in different semesters under different instructors for a total of eight credits.

2. Requirements for the Liberal Arts Major in Studio Art

Eight departmental courses in SA, a total of 40 credits, are required for the major.

Required corequisites for the studio art major are either — SA 130 or AH 262, and eight additional credits in AH.

STUDIO ART COURSES

SA 130 is a four-credit, one-semester lecture course. All other SA courses are studio courses which are for one semester and carry 5 credits for 6 contact hours per week.

Studio Art 100**Introduction to Studio Art, I**

Introduction to visual concepts and their relationships to various media and expressive considerations.

Studio Art 101**Introduction to Studio Art, II**

Continuation of SA 100. Prerequisite: SA 100 or permission of instructor.

Studio Art 130 Art Since 1945

Critical analysis of the principal visual and thematic ideas in the visual arts of the United States and Europe since 1945.

Studio Art 200 General Compositional Elements, I

Exploration of various elements of composition including color, field, line, and scale. Emphasis will vary according to the instructor. Prerequisite: SA 101 for studio art majors; permission of instructor for non-majors.

Studio Art 201 General Compositional Elements, II

Continuation of SA 200. Prerequisite: SA 200 for studio art majors, permission of instructor for non-majors.

Studio Art 202 Studio Art for Transfer Students

Special course for transfer students. A portfolio is required at the end of this course for assignment into 300-level and/or 400-level SA courses.

Studio Art 300 Specific Compositional Elements, I

Detailed exploration of specific elements of composition such as horizontals, modules, and environmentals. Emphasis and title listing will vary depending on instructor. Prerequisite: SA 201 for studio art majors; permission of instructor for non-majors.

Studio Art 301 Specific Compositional Elements, II

Continuation of SA 300. Prerequisite: SA 300 for studio art majors; permission of instructor for non-majors.

Studio Art 305 Non-Traditional Media, I

Investigation of the creative use of specific contemporary media such as audio and video tape, computers, and other electronic devices. Prerequisite: permission of instructor.

Studio Art 306 Principles of Figure Drawing

The traditional approaches to figure drawing. Prerequisite: permission of instructor.

Studio Art 400 Specific Media, I

Independent exploration of one or two specific media. Portfolio will be judged at the end of the semester. Prerequisite: SA 301 for studio art majors; permission of instructor for non-majors.

Studio Art 401 Specific Media, II

Continuation of SA 400. Portfolio will be judged at the end of the semester. Prerequisite: SA 400 for studio art majors; permission of instructor for non-majors.

3. Requirements for the Secondary Teaching Minor in Art

AH 100, AH 262 or SA 130, AH 350, and two additional courses in AH or SA are required, making a total of 20 to 22 credits.

Consult with the Dean of the School of Education for more detailed information.

A secondary teaching major in art is not offered.



DEPARTMENT OF BIOLOGICAL SCIENCES

ACTING CHAIRMAN: NALIN J. UNAKER

PROFESSORS: William C. Forbes; Clifford V. Harding, Adjunct Professor; V. Everett Kinsey; V. N. Reddy; Reuben Torch; Walter L. Wilson

ASSOCIATE PROFESSORS: Francis M. Butterworth; Moon J. Pak; John R. Reddan; Michael V. Riley; Nalin J. Unaker

ASSISTANT PROFESSORS: Madison B. Cole; John D. Cowlshaw; Esther M. Goudsmit; Paul A. Ketchum; Arun K. Roy; Barry S. Winkler

LECTURERS: Philip T. Clampitt; James R. Wells

The Department of Biological Sciences offers a program of study leading to the degree of Bachelor of Arts. The program prepares the student for graduate studies in the life sciences, laboratory and research work in industries concerned with biological materials, professional careers in medicine, dentistry, nursing or other allied health areas, or science teaching in junior and senior high schools. This liberal arts program in biology is particularly well suited to the needs of the pre-medical student.

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

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

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

Requirements for the B.A. Degree in Biology

Forty credits in biology are required. This total must include at least seven lecture courses, (corresponding lecture and lab courses should normally be taken simultaneously). In addition, 15 credits of chemistry (two semesters of inorganic and one semester of organic chemistry, with associated labs), 10 credits in physics (two-semester general course and labs), and mathematics through MTH 122 or MTH 134 are required.

Requirements for the Secondary Teaching Major in Biology

Thirty-five credits in biology from BIO 111 and above are required including at least six lecture courses. Minors in chemistry or physics, or a group minor in chemistry and physics (as listed under requirements for the teaching minor in science, p. 000) are recommended. One year of inorganic chemistry and associated mathematics through MTH 121 or MTH 134 and the following education courses: ED 244, 245; ED 428, and ED 455.

Requirements for the Secondary Teaching Minor in Biology

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

LIBERAL ARTS MAJOR IN BIOLOGY

(A Typical Program)

Semester 1

BIO 111, 112
Chem 104 or 114, 117
Distribution Requirement
Learning Skills or Math

Semester 3

BIO Lecture and Lab
Chem 203, 206
Distribution Requirement
Math or elective

Semester 2

BIO 113, 114
Chem 105, 107 or 115, 118
Distribution Requirement
Learning Skills or Math

Semester 4

BIO Lecture and Lab
Distribution Requirement
Math or elective
Chem 204, 208 or elective

Semester 5
BIO Lecture and Lab
Distribution Requirement or
Foreign Language
Physics 101 or 151
Distribution Requirement or
elective

Semester 7
BIO Lecture and Lab
Distribution Requirement
Elective
Elective

Semester 6
BIO Lecture and Lab
Distribution Requirement or
Foreign Language
Physics 102 (or 152) and 158
Elective

Semester 8
BIO Lecture and Lab
Distribution Requirement
Elective
Elective

The choice of chemistry, math and physics courses should be made with care. Chem. 114, 115 should be chosen by students with strong interest and aptitude in chemistry, and who desire a particularly rigorous sequence. Chem. 104, 105 offers special emphasis on biochemical applications. Students planning on graduate work or professions requiring a strong mathematical training are urged to take Math 154-155 and Physics 151, 152. Students with insufficient background to enter Math 154-155 may take Math 134 which provides the background for Math 154. Placement examinations are given in Math and Chem to entering freshmen to assist in course selection.

Certain professional or graduate schools require a fourth semester of Chemistry, German, French or Russian is recommended but not required.

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

(A Typical Program)

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

Semester 3
BIO Lecture and Lab
Chem 203, 206
ED 244
Math (or elective)

Semester 2
BIO 113, 114
Chem 105, 107 or 115, 118
Distribution Requirement
Learning Skills or Math

Semester 4
BIO Lecture and Lab
Distribution Requirement or
elective
ED 245
Math (or elective)

Semester 5
BIO Lecture and Lab
Distribution Requirement or
Foreign Language
Physics 101 or 151
Field Group Requirement or
elective

Semester 7
BIO Lecture and Lab
Distribution Requirement
Elective
Elective

Semester 6-
BIO Lecture and Lab
Distribution Requirement or
Foreign Language
Physics 102 (or 152) and 158
Elective

Semester 8
ED 428
ED 455
Elective
Elective

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

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

BIO 104 Biology of the Human (4 credits)

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

BIO 105 Biology of the Human (4 credits)

Digestion, excretion, the endocrine system and reproduction will be discussed. Offered in the Winter Semester.

Prerequisite: BIO 104 or permission of the Instructor.

BIO 106 Local Flora (4 credits)

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

BIO 108 Bio-engineering (4 credits)

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

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

BIO 111 Biology (4 credits)

Subjects covered this term are at the level of molecular and cell biology: cell ultrastructure, enzymology, metabolism, genetics, cell division, chemical embryology. Emphasis is placed on several basic biological concepts, facts upon which these concepts are based and also the directions which present research are taking. A year of high school chemistry is strongly recommended. BIO 113 may be taken before BIO 111. Offered in the Fall Semester.

BIO 112 Biology Laboratory (1 credit)

To accompany BIO 111.

BIO 113 Biology (4 credits)

Continuation of BIO 111. The taxonomy, anatomy and physiology of plants and animals. The principles governing animal and plant ecology and evolution. Offered in the Winter Semester.

BIO 114 Biology Laboratory (1 credit)

To accompany BIO 113

BIO 121 Introductory Microbiology (4 credits)

A survey course emphasizing the relationship between microorganisms and man. The topics covered will include microbiol structure and function; nutrition, growth and genetic systems in microorganisms; host-parasite relationships; basic principals of immunology; antimicrobial agents; microorganisms and the environment. Classification of bacteria, algae, slime molds and protozoa.

No prerequisites.

BIO 221 Physiology (4 credits)

A detailed study of general physiological principles. Primary emphasis will be focused on the following topics: characterization of the internal environment; bio-energetics; transport of material across the cell membrane; osmoregulation; respiration; conduction; contraction; contraction; circulation.

Prerequisite: BIO 113.

BIO 222 Anatomy and Physiology Laboratory (1 credit)

A detailed study of vertebrate anatomy and physiology.

To accompany BIO 221.

BIO 223 Histology (4 credits)

The microscopic anatomy and histochemistry of vertebrate tissues and organs, in relation to tissue function.

Prerequisite: BIO 113.

BIO 224 Histology Laboratory (2 credits)

To accompany BIO 223.

BIO 225 Elementary Biophysics and Cellular Biochemistry (4 credits)

The principles and techniques of molecular biology which are basic to discussions in the intermediate and advanced courses. Topics covered include: structure and function and macromolecules, cellular organization, biological energy, molecular genetics, and related techniques. Offered in the Fall Semester.

BIO 226 Elementary Biophysics and Cellular Biochemistry Laboratory (1 credit)

To accompany BIO 225.

BIO 237 Botany (4 credits)

A course in plant biology including topics on gross and microscopic structure, physiological processes, reproduction, and development. Diversity within the plant kingdom and evolutionary history are also discussed.
Prerequisite: BIO 113.

BIO 238 Botany Laboratory (1 credit)

To accompany BIO 237.

BIO 241 Plant Morphology (4 credits)

Structure, reproductive mechanisms, and evolutionary relationships of the plant groups. Ultrastructure of cells and their walls. Preparation of plant materials for microscopic examination. Cytochemistry and histogenesis of selected specimens.

Prerequisite: BIO 113.

BIO 242 Plant Morphology Laboratory (1 credit)

To accompany BIO 241.

BIO 243 Plant Physiology (4 credits)

Mineral nutrition, absorption and translocation, metabolism, hormonal control, dormancy, growth and reproduction, and physiological responses to the environment.

Prerequisite: BIO 241.

BIO 244 Plant Physiology Laboratory (1 credit)

To accompany BIO 243.

BIO 247 Invertebrate Zoology (4 credits)

Comparative study of major invertebrate groups, with particular reference to their evolution.

Prerequisite: BIO 113.

BIO 248 Invertebrate Zoology Laboratory (1 credit)

To accompany BIO 247.

BIO 249 Endocrinology (4 credits)

An integrated study of the vertebrate endocrine systems with emphasis on their interrelationship, control, and mechanism of action. Offered in the Winter Semester.

Prerequisite: BIO 225 or 221.

BIO 250 Endocrinology Laboratory (2 credits)

To accompany BIO 249. Individual research projects. Offered in the Winter Semester.

Prerequisite: Permission of the Instructor.

BIO 301 Ecology (4 credits)

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

BIO 302 Ecology Laboratory (1 credit)

To accompany BIO 301.

BIO 309 Parasitology (4 credits)

A survey of parasitic relationships: taxonomy and anatomy of involved organisms, life cycles, nutrition, pathology, immunology, and preventive methods. Opportunity for individual projects.

BIO 310 Parasitology Laboratory (1 credit)

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

BIO 323 Developmental Biology (4 credits)

The principles of embryology and related topics. A consideration of events in the progressive development of the egg into the adult organism. The physiological aspects of morphogenesis, differentiation, growth and regeneration will be included. Offered in the Winter Semester.

Prerequisites: BIO 113, 114.

Corequisite: BIO 324.

BIO 324 Developmental Biology Laboratory (1 credit)

To accompany BIO 323. A study of the anatomy of developing vertebrate animals. Individual and group research projects in experimental morphogenesis. Offered in the Winter Semester.

Corequisite: BIO 323.

BIO 331 Microbiology (4 credits)

A discussion of the classification, morphology and physiology of microorganisms.

Prerequisite: BIO 113, and one year of chemistry.

BIO 332 Microbiology Laboratory (2 credits)

To accompany BIO 331.

BIO 341 Genetics (4 credits)

The physical and chemical basis of inheritance. Selected topics in human genetics, microbial genetics, biochemical genetics, and cytogenetics.

Prerequisite: BIO 113.

BIO 342 Genetics Laboratory (1 credit)

A series of short experiments to demonstrate basic genetic principles to accompany BIO 341.

BIO 343 Aquatic Biology (4 credits)

A general study of energy flow and biomass production up the trophic series, including energy transfer and limiting factors at each level. The finite nature of aquatic resources and their exploitation in relation to the future protein requirements of man will be explained and examined.

Prerequisites: BIO 111, 112, 113, 114.

BIO 344 Aquatic Biology Laboratory (1 credit)

To accompany BIO 343.

BIO 345 Experimental genetics (2 credits)

An innovative approach to learning genetics where the student working on an individual research project not only will learn some of the basic principles of genetics but also will obtain preliminary experience in biological research. To be offered with BIO 341.

BIO 350 Physiology of the Central Nervous System (2 credits)

A course on the functional organization and integrative operation of the central nervous system. Topics include neuronal activity, synaptic transmission, regional network properties, organization of cerebral function, sensation (including special senses) and control of motor activity.

Prerequisite: Introductory Biology course or equivalent.

BIO 355 Visual Physiology (2 credits)

A course primarily on the structure and function of the vertebrate visual system. Topics include optical properties of the eye, absorption of light energy by photopigments, transduction processes in photoreceptor cells, transmission and encoding of visual information through the retina, lateral geniculate body, visual cortex and associative structures, dark and light adaptation, color vision.

Prerequisite: BIO 111 or equivalent.

BIO 403 Protozoology (4 credits)

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 the Instructor.

BIO 407 Cellular Biochemistry (4 credits)

An advanced level discussion of the cellular function in the perspective of the recent developments in molecular biology. The topics to be covered include macromolecular chemistry, enzymology, metabolic interrelationships, sub-cellular organelles, protein and nucleic acid biosynthesis and cellular control mechanisms. Offered in the Fall Semester.

Prerequisites: BIO 225, CHM 204, PHY 102.

BIO 408 Cellular Biochemistry Laboratory (1 credit)

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

BIO 409 Cellular Biochemistry (4 credits)

Continuation of BIO 407.

BIO 410 Cellular Biochemistry Laboratory (1 credit)

To accompany BIO 409.

BIO 411 Experimental Embryology (4 credits)

Lectures and student seminars on current topics in gametogenesis, fertilization and development. Emphasis is on the critical evaluation of current and classical publications.

Prerequisites: BIO 323 and permission of Instructor.

BIO 412 Laboratory in Experimental Embryology (2 credits)

The development of a variety of living embryos will be followed. When the stages of normal development have been observed, an experimental analysis of some aspect of embryogenesis will be undertaken.

Corequisite: BIO 411.

DEPARTMENT OF CHEMISTRY

CHAIRMAN: PAUL TOMBOULIAN

PROFESSORS: Gottfried Brieger; Kenneth M. Harmon; Lewis N. Pino; Paul Tomboulian

ASSOCIATE PROFESSORS: Julien Gendell; Steven R. Miller; Frederick W. Obear; Joel W. Russell; Robert L. Stern; Robert C. Taylor

ASSISTANT PROFESSORS: Parbury P. Schmidt; Michael D. Sevilla; Donald C. Young

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

The Department is pleased to offer credit through the Advanced Placement Program. (See p. 00) Entering students interested in this option should consult with a departmental adviser well in advance of their first registration.

Requirements for the Major in Chemistry

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

Forty-eight credits in chemistry are required. Of these at least 32 credits must be taken in lecture courses including CHM 235, 312, and 345 and at least 13 credits in laboratory courses including CHM 218, 317, and 348. (CHM 444 and 351

highly recommended electives.) Twenty-six credits in mathematics and physics are required, including MTH 254, PHY 158, and PHY 371. Admission to major standing requires a total of 32 credits in chemistry, physics, and mathematics.

American Chemical Society Certification Program

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

Requirements for the Liberal Arts Major in Chemistry

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

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

Requirements for the Secondary Teaching Major in Chemistry

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

The following education courses are required: ED 244, 245, 428, and 455. ENV 151 and 181 are strongly recommen-

ded electives. Admission to major standing requires a total of 28 credits in chemistry, biology, physics, and mathematics.

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

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

Requirements for the Secondary Teaching Minor in Chemistry

Twenty credits in chemistry courses are required.

MAJOR IN CHEMISTRY

(A Typical Program)

Semester 1

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

Semester 2

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

Semester 3

CHM 234, 217
MTH 254
PHY 152, 158
Distribution Requirement

Semester 4

CHM 235, 218
PHY 371
(MTH 255)¹
Distribution Requirement

Semester 5

CHM 344
CHM 317
(CHM 351, 357)¹
Distribution Requirement

Semester 6

CHM 345, 348
(CHM 324, 328)¹
Elective
Distribution Requirement

Semester 7

CHM 312
(CHM 444, 448)¹
Elective

Semester 8

CHM Elective
Distribution Requirement or
Elective
Elective

¹Courses in parentheses are not required but are recommended electives.

LIBERAL ARTS MAJOR IN CHEMISTRY

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

Semester 1

CHM 104 or 114, 117
MTH 934 or 154
Learning Skills or
Distribution Requirement

Semester 3

CHM 203, 206 or 234, 217
MTH 155 or 254
PHY 151
Distribution Requirement

Semester 5

CHM 305 or 344
BIO 111, 112
PHY 371

Semester 7

(CHM Elective)¹
BIO Elective
Elective

Semester 2

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

Semester 4

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

Semester 6

CHM Elective¹
BIO 113, 114
Elective

Semester 8

(CHM Elective)¹
Distribution Requirement
Elective

¹CHM 312, 324, 328, 345, 351, and 371 are recommended electives.

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

(A Typical Program)

Semester 1

CHM 104
MTH 134 or 154
Learning Skills or
Distribution Requirement

Semester 3

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

Semester 2

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

Semester 4

CHM 204, 207
PHY 152, 158
ED 245
Elective

Semester 5
CHM Elective
BIO 111, 112
Distribution Requirement

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

Semester 7
BIO Elective
PHY Elective

Semester 8
ED 428
ED 455

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

CHM 104 Introductory Chemistry (4 credits)

Introduction to atomic and molecular structure, chemical bonding, and stoichiometry. Offered in the Fall Semester.

Prerequisite: Two years of high school mathematics.

CHM 105 Introductory Chemistry (4 credits)

Chemical equilibria, solution chemistry, and reaction mechanisms.

Prerequisite: CHM 104.

CHM 107 Introductory Chemistry (1 credit)
Laboratory

Experiments which illustrate fundamental chemical principles and introduce modern laboratory techniques; methods of analysis and physical properties of compounds.

Prerequisite: CHM 104.

CHM 114 Chemistry (4 credits)

An introduction to the study of gases, liquids, solids, atomic and molecular structure, stoichiometry, equilibria, thermodynamics, and kinetics. Offered in the Fall Semester.

Prerequisite: Two years of high school mathematics. Some knowledge of high school chemistry is assumed. Concurrent registration in MTH or MTH 134 is recommended.

CHM 115 Chemistry (4 credits)

Chemical equilibrium: ionic, heterogeneous, oxidation-reduction, pressure, temperature, and concentration effects; rates and mechanisms of chemical reactions; an introduction to biochemistry, organic, inorganic, and nuclear chemistry. Offered in the Winter Semester.

Prerequisite: CHM 114 or 124.

Prerequisite or corequisite: MTH 154.

CHM 117 Chemistry Laboratory (1 credit)

Introductory experiments in various areas of chemistry. Offered in the Fall Semester.

Prerequisite or corequisite: CHM 114 or CHM 124.

CHM 118 Chemistry Laboratory (1 credit)

Introductory chemical separations and fundamental chemical reactions.

Prerequisite: CHM 117.

CHM 124 Chemistry (4 credits)

An introduction to the study of gases, liquids, and solids; atomic and molecular structure; thermodynamics and kinetics. Offered in the Fall Semester.

Prerequisite: One year of high school chemistry and three years of high school mathematics.

Corequisite: MTH 154.

CHM 125 Chemistry (4 credits)

Chemical equilibrium: ionic, heterogeneous, oxidation-reduction, pressure, temperature, and concentration effects; rates and mechanisms of chemical reactions; an introduction to biochemistry, organic, inorganic, and nuclear chemistry. Offered in the Winter Semester.

Prerequisite: CHM 124.

Corequisite: MTH 155.

CHM 191 Computer Techniques (2 credits)

Introduction to computer programming and numerical methods used in chemistry: Fortran, curve fitting, roots of equations, numerical integration.

Prerequisite: One year of college chemistry or two years of high school chemistry.

CHM 203 Introductory Organic Chemistry (4 credits)

Rates of chemical reactions; basic organic chemistry; synthetic polymers; biopolymers. Offered in the Fall Semester.

Prerequisite: CHM 105 or 115.

CHM 204 Intermediate Organic Chemistry (4 credits)

Treatment of organic reactions and nomenclature: stereochemistry, mechanisms, synthesis, and structure proof. Special emphasis will be placed on topics that are biologically significant. Offered in the Winter Semester.

Prerequisite: CHM 203.

CHM 206 Introductory Organic Chemistry Laboratory (1 credit)

Fundamental techniques of organic chemistry.

Prerequisite or corequisite: CHM 203, Prerequisite: CHM 107 or 117.

CHM 207 Intermediate Organic Chemistry Laboratory (1 credit)

Synthetic, degradative, and analytical techniques of organic chemistry with emphasis on natural products.

Prerequisite: CHM 206.

Corequisite: CHM 204.

CHM 217 Introductory Analytical Laboratory (3 credits)

Lectures and experiments dealing with the fundamentals of analytical chemistry. Some of the topics include: gravimetry, titrimetry, polarography, spectrophotometry, atomic spectroscopy, advanced equilibria.

Prerequisite: CHM 118 or permission from instructor.

CHM 218 Introductory Synthetic (2 credits)
Laboratory

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

Prerequisite: CHM 217, CHM 234.

CHM 234-235 Structure and Reactivity (4 credits each)

Functional groups, reaction mechanisms, stereochemistry, rearrangements, polymers, and natural products. Offered as a Fall-Winter sequence.

Prerequisites: CHM or 105.

CHM 261 Radiochemistry (3 credits)

Nuclear structure and stability, nuclear reactions, decay schemes, dosimetry, radioisotope production, tracer applications, radioisotope methodology; includes laboratory.

Prerequisite: CHM 206 or 118.

CHM 305 Introductory Physical (4 credits)
Chemistry

An introduction to the systematic treatment of thermodynamics, kinetics, and transport theory. Applications will be drawn from biochemical sources where appropriate.

Prerequisites: PHY 101, MTH 121 or 134, CHM 105 or 115.

Prerequisite or Corequisite: MTH 122 or 154.

CHM 308 Introductory Physical (1 credit)
Chemistry Laboratory

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

Prerequisite or corequisite: CHM 305.

CHM 312 Inorganic Chemistry (4 credits)

Discussion of representative inorganic compounds including salts, covalent and ionic molecules, and transition metal compounds with emphasis on structure, bonding, kinetics, and mechanisms.

Prerequisite: CHM 305.

CHM 317 Inorganic Chemistry (1 credit)
Laboratory

Advanced preparatory techniques; methods of purification and analysis.

Prerequisite or corequisite: CHM 312.

CHM 324 Analytical Chemistry (2 credits)

Advanced quantitative techniques and measurements; theory and application of modern analytical methods.

Prerequisites or corequisites: CHM 237 or 207; CHM 344 or 205; PHY 152.

Corequisite: CHM 328.

CHM 328 Analytical Chemistry (2 credits)
Laboratory

Laboratory coordinated with CHM 324.

Corequisite: CHM 328.

CHM 344 Physical Chemistry (4 credits)

Physical chemistry of macroscopic systems: thermodynamics, kinetics, transport properties.

Prerequisites: CHM 203 or 115, MTH 155, PHY 152.

CHM 345 Physical Chemistry (4 credits)

Physical chemistry of microscopic systems: elementary quantum chemistry, bonding theories, introductory statistical mechanics.

Prerequisites: CHM 205 or 344, MTH 254, PHY 371.

CHM 348 Physical Chemistry Laboratory (2 credits)

Prerequisites: CHM 344, PHY 158.

CHM 351 Biochemistry (4 credits)

An introduction to molecular biology and the chemistry of biological macromolecules; proteins and nucleic acids, enzymology, bio-energetics, and metabolic cycles.

Prerequisite: CHM 235 or 204.

CHM 357 Biochemistry Laboratory (1 credit)

Prerequisite or corequisite: CHM 351.

CHM 371 Environmental Chemistry (3 credits)

A detailed treatment of a variety of chemical topics and problems in the current environment. The basis for phenomena of eutrophication, combustion chemistry, modes of pesticide action, chemical ecological relationships are typical topics considered.

Prerequisites: CHM 203 or 234; CHM 305 or 344; some knowledge of biochemistry desirable.

CHM 372 Air Chemistry (4 credits)

A technical evaluation of the nature and composition of the earth's atmosphere, both in its natural state and as it has been affected by man. Some discussion of air pollution control will be included. Identical with ENV 372.

Prerequisite: CHM 203 and 305, or equivalent.

CHM 373 Aquatic Chemistry (4 credits)

A technical introduction to the nature and composition of all types and bodies of water, including streams, rivers, lakes, and oceans. Some discussion of water pollution control will be included. Identical with ENV 373.

Prerequisite: CHM 203 and 305, or equivalent.

CHM 400 Seminar (1 credit)

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

CHM 405 Selected Topics (2, 4 or 6 credits)

Advanced study in special areas; seminars, laboratory work, and readings.

Prerequisite: Permission of the Department.

CHM 413 Advanced Inorganic Chemistry (4 credits)

A study of the families of elements and classes of compounds from the standpoint of molecular structure and the rates and equilibria involved in chemical reactions.

Prerequisite: CHM 312.

**CHM 422 Advanced Analytical (4 credits)
Chemistry**

Detailed treatment of the theory and applications of modern analytical methods.

Prerequisite: CHM 324.

**CHM 426 Instrumentation and (3 credits)
Electroanalytical Chemistry**

Basic electronics, passive networks, La Place Transforms, operational amplifier circuits, building of instruments with emphasis on electroanalytical instrumentation. Lectures and laboratory.

Prerequisite: CHM 217 or equivalent, PHY 158; pre- or corequisite CHM 344.

**CHM 434 Advanced Organic (4 credits)
Chemistry**

Discussion of the various aspects of modern synthetic methods, stereochemistry, and reaction mechanisms; selected special topics.

Prerequisite: CHM 204 or 235.

**CHM 444 Advanced Physical (4 credits)
Chemistry**

Application of quantum mechanics and statistical mechanics to chemical kinetics, molecular structure, and molecular spectroscopy.

Prerequisite: CHM 345.

CHM 448 Spectroscopy Laboratory (2 credits)

Experimental techniques of spectroscopy: infrared, ultraviolet, nuclear magnetic resonance, electron spin resonance, mass spectroscopy.

Prerequisite or corequisite: CHM 444.

CHM 452 Advanced Biochemistry (4 credits)

Topics in intermediary metabolism, cellular regulation, and molecular genetics.

Prerequisite: CHM 351 or BIO 407.

CHM 487 Advanced Preparations (2 or 4 credits)

Specialized laboratory work in selected areas emphasizing advanced techniques.

Prerequisite: Permission of the instructor is required prior to registration.

CHM 490 Research (1,2,4,6, or 8 credits)

Laboratory and library practice in undergraduate research.

Prerequisite: Permission of the Department is required prior to registration.

CHM 497 Apprentice College Teaching (2 or 4 credits)

Supervised participation in the teaching of selected undergraduate courses, usually laboratories. Open to upperclass majors. May not be used to satisfy major requirements (Graded S/N).

Prerequisite: Permission of the department.

Chemistry courses on the 500 level are graduate level courses available to well-prepared undergraduate students with permission of the Department. These courses may be offered as reading courses on a tutorial basis or as small lecture courses.

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

Advanced treatment of selected topics of inorganic chemistry.
Prerequisite: CHM 413 or equivalent.

CHM 523, 524 Topics in Analytical (4 credits each)
Chemistry

Advanced treatment of selected topics of current analytical chemistry such as separation methods, instrumentation, electrochemistry.
Prerequisite: CHM 422 or equivalent.

CHM 531, 532, 533 Topics in Organic (4 credits each)
Chemistry

Advanced treatment of selected special topics: natural products, organometallics, reaction mechanisms, synthesis.
Prerequisite: CHM 234 or equivalent.

CHM 543, 544 Topics in Physical (4 credits each)
Chemistry

Special topics in physical chemistry such as quantum mechanics, statistical mechanics and thermodynamics, kinetics, group theory.
Prerequisite: CHM 444 or equivalent.

CHM 552, 553 Topics in Biochemistry (4 credits each)

Advanced treatment of selected topics in biochemistry. This course is usually conducted as tutorial with topics chosen according to the interests and backgrounds of the students.

Prerequisite: CHM 452 or equivalent.

DEPARTMENT OF CLASSICAL LANGUAGES AND LITERATURES

CHAIRMAN: STEPHEN C. SHUCARD

ASSOCIATE PROFESSOR: Stephen C. Shucard

ASSISTANT PROFESSORS: Peter J. Binkert; Susan A. Stephens; Cherryl A. Wagner

The goal of the Classics curriculum is to transmit and interpret the ideas, ideals and institutions of Western antiquity to the student of the twentieth century. Those who wish to pursue their interest in studying the culture of Greece and Rome are able to do so either by intensive study of the original languages and literatures or by a broad-based selection of largely non-language courses in ancient mythology, religion, philosophy, history, poetry and art offered by the Classics and other departments.

In conveying to the student a sense of continuity between the ancient past and the present, the Department also tries to foster an appreciation of the triumphs and failures of ancient life and thought. Quite apart from studying Greece and Rome for their influence on modern civilization, however, there is the joy of studying Classics for their special and intrinsic interest. In order to understand that no period of history has ever produced greater human achievement than just the half millenium between 450 B.C. to 50 A.D., it is necessary to study the life and works of tragedians like Aeschylus, Sophocles and Euripides, comedians like Aristophanes and Plautus, historians like Thucydides and Tacitus, philosophers like Plato and Aristotle, orators like Demosthenes and Cicero, as well as military geniuses and politicians like Alexander and Caesar.

Because of the importance of Latin and Greek to the English and Romance languages, the Department strongly recommends to these majors that they consider at least a year of Latin and/or Greek as an elective sometime during their undergraduate career. For humanities and other students with an interest in classical civilization, the Department recommends general survey courses.

Students majoring in the Department study the works of antiquity in the original languages, usually in small tutorials based on the content of a classics course (history, literature,

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

The Department of Classical Languages and Literatures offers programs of study leading to the degree of Bachelor of Arts with liberal arts major in classical languages, liberal arts major in Latin, and secondary teaching major in Latin. The Department anticipates introducing in the near future an alternative program leading to the B.A. degree in Classical Civilization.

Requirements for the Liberal Arts Major in Classical Languages

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

Requirements for the Liberal Arts Major in Latin

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

Requirements for the Secondary Teaching Major in Latin

Thirty-two credits in Latin and classics or ancient history are required, including 20 credits in Latin (in courses beyond LTN 215) and 12 credits in classics. The following education courses are required: ED 244, ED 245, ED 428, ED 455; a minor concentration in language arts or in (ancient) history is

strongly advised. Admission to major standing requires successful completion of the English proficiency requirement, the completion of LTN 215 (either by course work or by proficiency examination), acceptance by the Department, and concurrent acceptance into the Teacher Education Program.

PROGRAMS FOR CONCENTRATION:

History Major with a Concentration in Classics:

Three (3) courses to be selected from courses in Greek, Roman, or Jewish history. May include CLS 130-131; HST 230-231.

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

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

Classics Major with a Concentration in Linguistics

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

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

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

Courses Open to Freshmen

Classical Languages and Literature

- ClassicsCLS 100, 101, 130/131, 203, 205, 312
- Latin/LTN 114, 214, 320
- Greek*GRK 114

CLS 100 Introduction to (4 credits)
Classical Civilization

Survey of the artistic, literary, philosophical and institutional heritage left to the modern world by ancient Greece and Rome
 Prerequisites: None. Open to all undergraduates.

CLS 101 Human Nature and the (4 credits)
Properties of Mind

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

CLS 130/131 (HST 230/231) (4 credits)**The Dynamics of Ancient Civilization**

A comparative examination of the major ancient societies in the light of the origins, characteristics and development of political institutions, the methods of integration of the individual in society, and the responses of the various societies to contact with, and incorporation of, foreign groups and ideas.

CLS 130/HST 230 Egypt, Mesopotamia, Israel, Greece.

CLS 131/HST 231 Rome and the Mediterranean.

Course to be offered 1973-74.

CLS 203 Survey of Greek Literature (4 credits)

Survey of the major writers of Greece. All works in translation. Recommended for freshmen and sophomores.

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

CLS 204 Classical Greek Philosophy (4 credits)

Identical with PHL 204.

CLS 205 Survey of Roman Literature (4 credits)

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

*Students with good high school grades in Latin (or Greek) normally begin in LTN 214 (or GRK). In exceptional cases freshmen may enter LTN 320. Such students may petition, upon successful completion of LTN 320, to receive credit for LTN 214/215. LTN 114 is open only to those with little or no Latin. All freshmen entering Latin courses should consult with the department.

CLS 211 An Introduction to Old Testament Literature (4 credits)

A study of the types of literature found in the Old Testament. Identical with ENG 211.

Prerequisites: Sophomore standing or permission of the instructor.

CLS 212 Greek Art (same as AH 312) (4 credits)

The architecture, sculpture, and painting of the pre-Hellenic Aegean civilizations and Classical Greece from 1500 B.C. to 100 B.C.

CLS 214 Roman Art (same as AH 314) (4 credits)

The architecture, sculpture, and painting of Etruria and Rome from 600 B.C. to A.D. 330.

CLS 300 Topics in Classical Literature (4 credits)

Examination of the origin, development and influence of specific classical genres, including epic, lyric, tragic and comic poetry, satire, oratory, and the ancient novel. Recommended primarily for juniors and seniors with background in literature. Offered at least one semester per year.

CLS 310 The Structure of the Indo-European Languages (4 credits)

A comprehensive investigation of the structure of the Indo-European languages with particular emphasis on Greek, Latin and Sanskrit. Topics to be

discussed include: the origin of the Indo-European peoples, the development of Indo-European scholarship, and the linguistic analysis of the major branches of the Indo-European language family. Offered every second fall.
 Prerequisites: None.

CLS 312 Classical Mythology (4 credits)

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

CLS 317 The Classical Tradition (4 credits)

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

CLS 324 The Ancient Historians (4 credits)

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

CLS 337 Hellenic Greece (4 credits)

Greek history from the Bronze Age through the Peloponnesian War. Identical with HST 337. Offered in alternate years.

CLS 339 Republican Rome (4 credits)

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

CLS 340 Imperial Rome (4 credits)

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

CLS 382 Ancient and Medieval Philosophers (4 credits)

An intensive study of the works of one major philosopher of the ancient or the medieval period. The specific philosopher to be considered will vary from year to year. May be repeated for credit. Offered every year. Identical with PHL 382.

Prerequisite: PHL 101. Recommended: PHL 204 or 205, depending on the philosopher studied.

CLS 396 The Ancient Near East: The World of the Bible (4 credits)

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

CLS 397 History of the Second Jewish Commonwealth (4 credits)

The historical events from the return from Babylon to the end of the Second Commonwealth (538 B.C. to 70 A.D.), including a consideration of the Great Assembly, the emergence of the synagogue, the Sanhedrin and Jewish sects, the origins of Christianity, and Greek-Roman-Jewish relations. Identical with HST 397. Offered at irregular intervals.

GRK 114-115 Elementary Greek (4 credits each)

Forms and grammatical structures of classical Greek, together with simple connected reading.

GRK 214-215 Intermediate Greek (4 credits each)

Review of grammar, training in translation from and into Greek, and the reading of simple literary works, including selections from Plato, Euripides, and Homer.

Prerequisite: GRK 115 or an equivalent proficiency.

GRK 320 Selections from Greek Literature (4 credits)

A reading course, offered every semester as a tutorial in association with the classics courses offered in that semester. May be taken for one or more semesters.

Prerequisite: GRK 215 or an equivalent proficiency.

GRK 480 Advanced Greek (4 credits)

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

Prerequisite: GRK 320 (4 or more credits).

GRK 490 Independent Study: Greek (4 credits)

Individual reading and research for advanced classics majors. Taught by arrangement.

Prerequisite: Consent of the instructor.

LTN 114-115 Elementary Latin (4 credits each)

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

LTN 214-215 Intermediate Latin (4 credits each)

Review of grammar, training in translation from and into Latin, and the reading of simple literary works, including selections from Vergil and medieval or renaissance Latin.

Prerequisite: LTN 115 or an equivalent proficiency.

LTN 300 Topics in Latin Language (4 credits)

Areas of study, such as Latin composition or grammar, selected by the instructor. Offered every winter term.

Prerequisite: Equivalent of two years of college Latin or instructor's approval.

LTN 320 Selections from Latin Literature (4 credits)

A reading course, offered every semester as a tutorial in association with the classics courses offered in that semester. May be taken for one or more semesters.

Prerequisite: LTN 215 or an equivalent proficiency.

LTN 480 Advanced Latin (4 credits)

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

Prerequisite: LTN 320 (4 or more credits).

LTN 490 Independent Study: Latin (4 credits)

Individual reading and research for advanced Classics majors. Taught by arrangement.

Prerequisite: Consent of the Instructor.

DEPARTMENT OF ECONOMICS

CHAIRMAN: ELEF'THERIOS N. BOTSAS

PROFESSORS: Robbin R. Hough; Sid Mittra; Norton C. Seeber

ASSOCIATE PROFESSORS: Eleftherios N. Botsas; Karl D. Gregory

ASSISTANT PROFESSORS: William R. Cron; David P. Doane; Alice C. Gorlin; John Hurd II; Lon Polk; John E. Tower; Kenneth C. Young

ADJUNCT FACULTY: Theodore O. Yntema

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

The liberal arts program in economics leads to the degree of Bachelor of Arts and is offered in the College of Arts and Sciences under the direction of the faculty in economics of the School of Economics and Management. Students taking liberal arts majors, including the economics major, must satisfy the appropriate degree requirements in the College of Arts and Sciences as described in this catalog. Economics majors may satisfy the University's general education requirements for graduation either by participating in the College of Arts and Science's General Education Program (see p. 54 of this catalog) or by participating in the program of one of the inner colleges—Allport College or New-Charter College. When choosing an inner-college program, students should consult their advisers to insure that all requirements for graduation are met.

Mathematics and Social Science Cognate Courses

To obtain a background in mathematics and another social science discipline, the student is required to take the following:

		Credits
MTH 121-122	Introductory Mathematics for the Life and Social Sciences or MTH 154-155 (Calculus)	8
Social Science	The student must take 2 courses for which he qualifies from one of the following social sciences: Political Science, Psychology, Sociology, Anthropology, and Speech Communication (except SCN 310)	8
TOTAL	16

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

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

Economics Core Program

The required economics courses are:

		Credits
ECN 100-101	Introduction to Economics I and II	8
ECN 210	Statistical Methods for the Social Sciences.....	4
ECN 211	Laboratory for ECN 210	1
ECN 216	Microeconomic Analysis.....	4
ECN 217	Macroeconomic Analysis	4
ECN 418/ECN 480	Selected Topics in Economics Policy/or Seminar.....	4
TOTAL IN ECONOMICS CORE PROGRAM	25

Economics Electives

The student completes his work in economics by electing at least 3 additional courses (12 credits) in economics. Two of the electives must require either ECN 216 or ECN 217 as a prerequisite.

Electives

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

Modifications to the Economics program may be sought by petitioning the chairman of the Department of Economics. If the requested changes to the above program are significant, the chairman may ask the student to work toward a Bachelor of Arts with an independent concentration. (See p. 56 of this catalog.)

Admission to major standing in economics requires: (1) certification of English proficiency; (b) completion of ECN 100-101, ECN 216; ECN 217, MTH 121-122 (or equivalent) (c) completion of 56 credits or more; and (d) at least a 2.0 cumulative grade point average overall and in major courses.

LIBERAL ARTS MAJOR IN ECONOMICS

(A Typical Program)

Semester 1

Learning Skills/Elective
MTH 121 (or MTH 154)
ECN 100
Distribution Requirement

Semester 3

ECN 216
ECN 210 and 211
(or MGT 210 and 211)
Distribution Requirement
Elective

Semester 5

Economics Elective
Social Science Requirement
Distribution Requirement
Elective

Semester 7

Economics Elective
Elective
Elective
Elective

Semester 2

Learning Skills/Elective
MTH 122 (or MTH 155)
ECN 101
Distribution Requirement

Semester 4

ECN 217
Distribution Requirement
Social Science
Requirement
Elective

Semester 6

Economics Elective
Distribution Requirement
Elective
Elective

Semester 8

ECN 480
Elective
Elective

Basic Courses

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

ECN 100 Introduction to Economics I (4 credits)

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

ECN 101 Introduction to Economics II (4 credits)

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

ECN 169 Introduction to the Political Economy of Capitalism (4 credits)

An introduction to the economic analysis of the capitalist economy using the tools and perspectives of both the traditional and radical economists. Topics include: (a) microeconomics—the development of the market system, monopoly, discrimination, pollution, and poverty; (b) macroeconomics—control of the level of economic activity, unemployment, inflation, defense spending, growth and under-development, and imperialism; and (c) alternative economic systems.

This course is not open to majors in economics or management.

ECN 210 Statistical Methods for the Social Sciences (4 credits)

Statistical techniques useful in business and economic analysis. Emphasis on statistical inference, including hypothesis testing, estimation, and regression techniques. Ordinarily offered in the Fall Semester.

Prerequisites: MTH 122 or equivalent.

Corequisite: ECN 211

ECN 211 Laboratory for ECN 210 (1 credit)

Use of computers in statistics.

ECN 216 Microeconomic Analysis (4 credits)

Intermediate analysis of pricing, resource allocation, and income distribution at the level of the individual firm, industry, and household consuming unit. Ordinarily offered in the Fall and Winter Semesters.

Prerequisites: ECN 101 or equivalent.

Prerequisites or corequisites: MTH 122 or equivalent.

ECN 217 Macroeconomic Analysis (4 credits)

The construction, analysis, and interpretation of models of aggregate economic behavior, including the policy implications of alternative models. Ordinarily offered in the Fall and Winter Semesters.

Prerequisites: ECN 101 or equivalent.

Prerequisites or corequisites: MTH 121 or equivalent.

Economics Electives

Following is a list of economics electives which have been offered by members of the faculty in the past three years. Students should use this list as a guide to what has been offered and what could be offered. If some students desire to

take a given course on the list or a course in addition to those on the list, they should petition the Department or a faculty member in an attempt to have the course offered. Any new course offering, change in the description of a course, or any change in the prerequisites for a course will be announced in a supplementary bulletin published during the advising period for a given semester. Under special circumstances, the prerequisites and corequisites for a course may be waived.

NOTE: The Economics Department is developing additional courses in several areas, including Medical and Health Care Economics, Minority Economic Development, and Soviet and East European Economics. It is expected that these courses will be offered in the immediate future.

ECN 223 The Indian Economy (4 credits)

The economic problems of developing nations in the context of the Indian economy.

Prerequisite: Permission of the Instructor.

ECN 225 American Economic History (4 credits)

Models and case studies of principal events in the growth and development of the American economy from colonial times to the present. Emphasizes the evolution of current historical thought under the impact of economic analysis.

Prerequisites: ECN 101 or equivalent.

ECN 300 Systems Analysis (4 credits)

Emphasizes the identification of goals and the use of resources for achieving goals through the application of analytical and quantitative tools developed in earlier courses to problems drawn from a variety of experiences, e.g., financial management, marketing, production, capital budgeting, etc. The course is designed to develop students' skills in the use of tools, to facilitate the transferability of these skills, and to enhance their ability to develop new skills as required by a given situation. Identical with MGT 300. Ordinarily offered in the Fall Semester.

Prerequisites: ECN 216 or equivalent.

**ECN 303 Economic Growth, Fluctuations, (4 credits)
and Forecasting**

Analysis of the forces underlying economic growth in advanced nations. Study of business conditions and various factors affecting business fluctuations. Introduction to economic forecasting techniques for the individual firm and for the national economy. Identical with MGT 303. Ordinarily offered in the Fall Semester.

Prerequisites: ECN 101 or equivalent.

ECN 308 Urban-Regional Economics (4 credits)

Application of the tools of economic analysis to the problems of the determination of the level, distribution, growth, and stability of income within and among urban regions. Study of the impact of these processes on spatial organization, transportation, industrial location, and the provision of public services.

Prerequisites: ECN 100 or equivalent.



DEPARTMENT OF ENGLISH

CHAIRMAN: JOSEPH W. DEMENT

PROFESSORS: Maurice F. Brown; John P. Cutts; Joseph W. DeMent; Peter G. Evarts (English and Learning Skills); Thomas Fitzsimmons; Gertrude M. White

ASSOCIATE PROFESSORS: James F. Hoyle; David W. Mascitelli; Donald E. Morse; Joan G. Rosen

ASSISTANT PROFESSORS: Charles M. Broh; Robert L. Donald; Jane Eberwein; Robert T. Eberwein; Nigel Hampton; William F. Horwath; Beverley F. Jones; Brian F. Murphy; Helen J. Schwartz

INSTRUCTORS: Daniel P. Armstrong; James E. Hart

ASSOCIATED FACULTY: Prof.: William Schwab (Linguistics and English); Asst. Prof.: Daniel H. Fullmer (Linguistics and English)

The primary emphasis of the Department of English is the informed enjoyment of imaginative literature. The study of language, the reading, analysis, interpretation, and evaluation of works necessary for such enjoyment, in ten quite different courses, should provide the English major with a permanently valuable introduction to the art of letters. Undergraduates majoring in English may use their knowledge of literature to become writers themselves, or scholars, technical writers, journalists, or teachers. Those who can read and write well are welcome in business, politics, publicity, the church, the law, the civil service, and many other professions.

The Department gives almost complete freedom in choice of courses, but hopes all majors will try to make sense of their programs with respect to variety and concentration and depth. Seek our counsel; we welcome the opportunity to discuss the study of literature with you and to help in your selection of courses.

The Department of English offers undergraduate programs of study leading to the degree of Bachelor of Arts with liberal arts major, secondary teaching major, major with concentration in linguistics, and secondary teaching minor. The Department of English offers graduate programs of study

leading to the degrees of Master of Arts in English and Master of Arts in Teaching of English. The latter program is jointly sponsored by the Department of English and the School of Education. For further information on the graduate programs, see the Graduate Bulletin.

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

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

The Liberal Arts Major in English

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

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

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

Secondary Teaching Major in English

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

- I. The graduation requirement: 124 hours
- II. The Major:
 Required:
 English 140
 English 241
 English 242
 English 224/225
 English 210
 English 376/377 or appropriate course in
 Linguistics
 English 498
 Elective:
 Three courses at 300-level or above.
- III. Cognates:
 (1) One course in the teaching of reading at the secondary level.
 or
 One course in speech-communication.
 and
 (2) One additional course in either Speech, Reading, Linguistics, or English composition.

Recommendations for Students Contemplating Graduate School

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

Recommendations for the Secondary Teaching Minor

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

The English Major with a Concentration in Linguistics

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

ENG 310 Persuasive Writing (4 credits)

A practical course in writing. Modes of persuasion, argumentation, arrangement of materials and matters of style.

Prerequisites: ENG 140 or permission of the Instructor.

ENG 311 Chaucer (4 credits)

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

Prerequisites: ENG 140 or permission of the Instructor.

ENG 312 Classical Mythology (4 credits)

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

ENG 313 Myth in Literature (4 credits)

Study of the mythic content and/or structure of literature.

Prerequisites: ENG 140 or permission of the Instructor.

ENG 315 Shakespeare (4 credits)

Reading and discussion of a representative selection of the plays and poetry.

Prerequisites: ENG 140 or permission of the Instructor.

ENG 317 Early American Literature (4 credits)

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

Prerequisites: ENG 140 or permission of the Instructor.

ENG 320 Development of American Poetry (4 credits)

An introduction to American poetry, with emphasis on the seventeenth to the nineteenth centuries.

Prerequisites: ENG 140 or permission of the Instructor.

ENG 322 Nineteenth Century American Fiction (4 credits)

Selected readings in representative writers of the period.

Prerequisites: ENG 140 or permission of Instructor.

ENG 324 American Romanticism (4 credits)

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

Prerequisites: ENG 140 or permission of the Instructor.

ENG 326 The Gilded Age (4 credits)

Readings in American fiction and poetry of the period between the Civil War and World War I.

Prerequisites: ENG 140 or permission of the Instructor.

ENG 332 Modern American Fiction (4 credits)

Readings in American fiction from Henry James to the present.

Prerequisites: ENG 140 or permission of the Instructor.

ENG 333 Modern American Poetry (4 credits)

Studies in the poetry of the first half of the twentieth century.

Prerequisites: ENG 140 or permission of the Instructor.

ENG 340 American Writing Now (4 credits)

Contemporary American poetry, drama, and fiction.

Prerequisites: ENG 140 or permission of the Instructor.

ENG 369 The English Novel (4 credits)

A study of representative English novels.

Prerequisites: ENG 140 or permission of the Instructor.

ENG 370 The Romantic Period (4 credits)

Literature of the Romantic period with emphasis on major poets such as Wordsworth, Coleridge, Keats.

Prerequisites: ENG 140 or permission of the Instructor.

ENG 371 Victorian Literature (4 credits)

Selected writers of the middle and late nineteenth century. Emphasis may be on fiction, poetry, prose or the drama at the discretion of the instructor.

Prerequisites: ENG 140 or permission of the Instructor.

ENG 375 Modern Literature (4 credits)

Modern British, American, and/or Continental literature, with concentration on the work of a small number of writers.

Prerequisites: ENG 140 or permission of the Instructor.

**ENG 376 History of the English
Language (4 credits)**

A detailed survey of the English language from its beginning to modern times.

Prerequisite: ENG 140 or permission of the Instructor.

ENG 377 Modern English Grammar (4 credits)

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

Prerequisites: ENG 140 or permission of the Instructor.

ENG 382 Old English (4 credits)

An introduction to the language of the Anglo-Saxons (c. 900 A.D.) in order to develop an ability to read Old English literature; acquaintance with the material is demonstrated by student recitation.

Prerequisites: ENG 140 or permission of the Instructor.

ENG 390, 391 Literary Criticism (4 credits each)

The study and history of criticism.

Prerequisites: ENG 140 or permission of the Instructor.

**ENG 400 Advanced Topics in Literature
and Language (4 credits)**

Advanced topics and problems selected by the instructor.

Prerequisites: ENG 140 or permission of the Instructor.

ENG 410 Imaginative Writing (4 credits)

Designed to provide potential writers of fiction, poetry and/or drama with an opportunity to develop technical proficiency and to receive criticism of work in progress. The course may focus on one kind of writing, and the approach may shift from semester to semester at the pleasure of the instructor.

Prerequisites: ENG 140 or permission of the Instructor.

ENG 430 Henry James (4 credits)

The novels, shorter fiction, and literary criticism of Henry James, with attention to biographical and critical approaches.

Prerequisites: ENG 140 or permission of the Instructor.

ENG 439 Faulkner (4 credits)

An intensive study of the fiction of William Faulkner, including attention to various critical approaches.

Prerequisites: ENG 140 or permission of the Instructor.

ENG 451 Major American Writers (4 credits)

Studies in one or two American writers to be selected by the instructor.
Prerequisites: ENG 140 or permission of the Instructor.

ENG 452 Major British Writers (4 credits)

Studies in one or two British writers to be selected by the instructor.
Prerequisites: ENG 140 or permission of the Instructor.

ENG 465 Shakespeare (4 credits)

Intensive analysis of four or five of the plays.
Prerequisites: ENG 140 or permission of the Instructor.

ENG 466 Milton (4 credits)

Selected early poems, including "On the Morning of Christ's Nativity," "Comus," "Lycidas"; some of the sonnets and prose treatises; Paradise Lost, Paradise Regained, and Samson Agonistes.
Prerequisites: ENG 140 or permission of the Instructor.

ENG 470 W. B. Yeats (4 credits)

Intensive reading of the poems, plays, essays, and autobiography of William Butler Yeats. Discussion.
Prerequisites: ENG 140 or permission of the Instructor.

ENG 490 Advanced Criticism (4 credits)

Intensive studies in criticism, often concentrating on a single school.
Prerequisites: ENG 140 or permission of the Instructor.

ENG 497 Apprentice College Teaching (2 or 4 credits)

An elective course open to any well-qualified upperclassman who wins consent of an instructor in the Department of English to assist in presenting an undergraduate course. The apprentice should be capable of assuming limited classroom responsibility. May not be taken for credit toward the major.
Prerequisites: ENG 140 or permission of the Instructor.

ENG 498 The Theories of Teaching Literature, Language, and Composition (4 credits)

An exploration of the theoretical approaches to the disciplines associated with the teaching of English in the secondary school. The course will treat the interrelationship of the disciplines, the format of instruction which the theories propose, the selection of appropriate materials, and the discussion and observation of innovative programs.
Prerequisites: English Secondary Education Majors only.

ENG 499 Independent Reading (2 or 4 credits)

Directed reading or research based on permission of the instructor. A proposal for a course of study must be submitted in the semester preceding that in which the independent study is to be taken. Prospectus forms are available in the English Department Office. Only three 499's may be credited toward the major. May be elected on an "S" or "N" grading basis.

ENG 500 Advanced Topics in Literature and Language (4 or 8 credits)**ENG 510 Literature and Composition (4 credits)**

ENG 533	Formal Analysis	(4 credits)
ENG 534	Language History	(4 credits)
ENG 541	Literary History	(4 credits)
ENG 542	Literary History	(4 credits)
ENG 561	Literary Kinds	(4 credits)
ENG 562	Literary Kinds	(4 credits)
ENG 597	Apprentice College Teaching	(4 credits)
ENG 600	Studies in Language and Literature	(4 credits)
ENG 640	Studies in American Literature	(4 credits)
ENG 641	Studies in American Literature	(4 credits)
ENG 642	Studies in Old and Middle English Literature	(4 credits)
ENG 643	Studies in Renaissance Literature	(4 credits)
ENG 644	Studies in Eighteenth Century Literature	(4 credits)
ENG 645	Studies in Nineteenth Century Literature	(4 credits)
ENG 646	Studies in Modern Literature	(4 credits)
ENG 647	Studies in the Structure of English	(4 credits)
ENG 648	Studies in Literary Theory	(4 credits)
ENG 690	The Master's Project	(4 credits)

DEPARTMENT OF HISTORY

CHAIRMAN: MELVIN CHERNO

PROFESSORS: Charles W. Akers; John Barnard; Richard M. Brace; Melvin Chernob; Robert C. Howes; George T. Matthews; W. Patrick Strauss; S. Bernard Thomas

ASSOCIATE PROFESSORS: De Witt S. Dykes, Jr.; Leonardas V. Gerulaitis; Gerald C. Heberle; Harold G. Lawrence; Paul M. Michaud; Anne H. Tripp; Richard P. Tucker

ASSISTANT PROFESSORS: James D. Graham; Mary C. Karasch; Joseph A. Klaitis; Roy A. Kotynek; Robert J. Krompart; Lawrence D. Orton; Carl R. Osthaus; Colin A. Palmer; I. Michael Solomon

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

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

The Department of History offers an undergraduate program of study leading to the degree of Bachelor of Arts, and a graduate program of study leading to the degree of Master of Arts. For further information on the graduate program, address inquiries to the Graduate Committee, Department of History. The student who majors in history should plan his or her course of study, in close consultation with a departmental adviser, following a pattern leading either to further study of history in graduate school, to secondary school teaching, or to enrollment in a postgraduate professional program. There is also a pattern for majors who wish to concentrate in Area Studies (see p. 233.)

Students in Allport College and New-Charter College can complete most degree programs in history in eight semesters, but students in Allport College and New-Charter College who plan to complete a degree program with secondary school teaching certification should be willing to add a ninth semester in order to meet all requirements. The Department of History grants advanced placement in accordance with the University policy as explained on p. 12 of this catalog.

Requirements for the Major in History

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

Requirements for the Secondary Teaching Minor in History

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

Department Undergraduate Courses and Prerequisites

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

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

HST 100 Topics in History (4 credits)

An introductory course to enable students to sample various historical problems and to develop critical judgment regarding the nature and use of historical evidence.

HST 201, 202 Introduction to (4 credits each) **European History**

An integrated series of courses offering an introduction to European history from about A.D. 500 to the present, with an emphasis upon critical analysis of the basis economic, social, and political context of the successive transformations of Europe.

HST 201 (Europe 500-1715) is a survey of the Middle Ages, Renaissance, Reformation, and the Early Modern period through the Era of Louis XIV. Offered each semester.

HST 202 (Europe, 1715-present) is a survey of European history from the Enlightenment to the modern age of industrialism, nationalism, and global conflict. Offered each semester.

HST 214, 215 Introduction to (4 credits each) **American History**

An integrated series of courses offering an introduction to American history from colonial times to the present.

HST 214 is a survey of the American political, economic, and intellectual history from the colonial period through the Reconstruction Era. Offered each semester.

HST 215 is a survey of American industrial growth, agricultural protest, experiments with imperialism, domestic reform, and world leadership from 1876 to the present. Offered each semester.

HST 220 Modern American Culture (4 credits)

A survey of the cultural history of the United States from the late nineteenth century to the present. Emphasizes the concurrent development of avant-garde movements and mass popular culture.

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

An integrated series of courses offering an introduction to English and British history from the Middle Ages to the present.

HST 234 is a study of the Middle Ages and the rise of parliamentary institutions, the Tudor revolution in government, the Reformation and the rise of Puritanism, the civil wars and the Glorious Revolution, and the culture of the Tudor and Stuart periods. Offered in alternate years.

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

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

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

HST 251 is a study of the political, social, and intellectual history of the Russian nation from its origins to 1855. Offered in the Fall Semester.

HST 252 is an analysis of the history of the decline of the Russian monarchy and the rise of the Soviet state from 1855 to the present. Offered in the Winter Semester.

HST 254 Eastern European History (4 credits)

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

HST 261, 262 Introduction to Latin American History (4 credits each)

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

HST 261 is a survey of pre-Columbian and colonial Latin America to 1825, stressing the Hispanization of the society, its socio-economic institutions, the influence of the Enlightenment, and the achievement of political independence. Offered in the Fall Semester.

HST 262 is a survey of the national period of Latin America from 1825 to the present, emphasizing the problems of instability, the growth of industrialization and the rise of the middle sectors, the emergence of nationalism and militarism, and the roots of social revolutionary ferment. Offered in the Winter Semester.

HST 277 Japan to 1800 (4 credits)

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

HST 278 Japan since 1800 (4 credits)

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

HST 280 History of Southeast Asia (4 credits)

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

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

A survey of the history of India from the earliest emergence of a recognizable Indian identity during the second millennium B.C. until the establishment of the Republic of India in 1948. Offered in the Fall Semester in alternate years.

HST 286, 287 Survey of African History (4 credits each)

An integrated series of courses offering an introduction to the social, political, economic, and technological developments in Africa from prehistoric times to 1875.

HST 286 considers the precolonial history of Africa, or the history of Africa from earliest times to the sixteenth century. Offered in the Fall Semester.

HST 287 surveys the European colonization of Africa, the African slave trade to the Americas, and African resistance movements to imperialism from the sixteenth century to just prior to the partition of the continent at the Berlin Conference. Offered in the Winter Semester.

HST 291, 292 History of the Afro-American People (4 credits each)

An integrated series of courses offering an introduction to the institutional, intellectual, and cultural developments within the Afro-American community, with special notice given to the political, economic, and social context in which such developments occur.

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

HST 292 surveys the post-Civil War experience of the Afro-American people. Offered in the Winter Semester.

HST 301 American Economic History (4 credits)

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

HST 302 History of the American Worker in the Twentieth Century (4 credits)

Study of the composition of the work force, the economic and social conditions of work, the rise of organized labor, the political programs and activities of workers and their responses to new technology and new economic structures, and the problems of the contemporary worker. Offered in alternate years.

HST 306 Colonial and Revolutionary America (4 credits)

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

HST 307 The American Religious Experience (4 credits)

A study of the religious history of the American people with an emphasis on social aspects. Within the general outline of chronological development, attention is given to such selected topics as religious elements in immigration, the separation of church and state, denominationalism and sectarianism, religion and nationalism, religious leadership, and religion as an influence in social change. Offered each winter.

HST 321 U.S. Diplomatic History since 1898 (4 credits)

American foreign policy and diplomacy from the Spanish-American War to the present, including such topics as American imperialism, Caribbean and Far Eastern policies, involvement in the world wars and the Cold War, and nuclear diplomacy. Offered in alternate years.

HST 322 The Social History of American Education (4 credits)

The educational impact of school, family, and church on American social and cultural life from the colonial period to the present. Offered in alternate years.

HST 323 Advanced Study in Afro-American History (4 credits)

Group reading and discussion, combined with independent research, on such subjects as the nature and scope of Afro-American history, bibliographical materials, the history of Afro-American history, and the Afro-American intellectual. Offered each year.

Prerequisites: HST 291 or HST 292.

HST 324 The Ancient Historians (4 credits)

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

HST 325 Medieval Europe (4 credits)

The European Middle Ages from about A.D. 400 to 1300, with special emphasis on intellectual developments. Offered in alternate years.

HST 326 The Italian Renaissance (4 credits)

The European Renaissance period, with special emphasis on the Italian experience. Offered in alternate years.

HST 327 The Northern Renaissance (4 credits)

European humanism, with special emphasis on the Lowlands, France, and Germany. Offered in alternate years.

HST 328 Europe in the Sixteenth Century (4 credits)

A comparative analysis of European society, including such themes as the varieties of humanism; the spiritual crisis of Christendom; the structure of the Renaissance state and formulation of sovereignty, political rebellion, and social revolution; dynastic and ideological warfare; and the effects of the expansion of the West upon European society. Offered in alternate years.

HST 329 Europe in the Seventeenth Century (4 credits)

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

HST 330 Medieval England (4 credits)

The constitutional, economic, social, and religious developments in England before 1500, with attention to the European context in which these changes occurred. Offered in alternate years.

Prerequisites: HST 201 or HST 234.

HST 331 Tudor England, 1485-1603 (4 credits)

The emergence of England as an international power, the religious Reformation, and the changes in government, society, and culture. Offered in alternate years.

Prerequisites: HST 201 or HST 234.

HST 332 Stuart England, 1603-1714 (4 credits)

The constitutional crises of the seventeenth century, the developments in economic, religious, social, and cultural life, and the beginnings of overseas expansion. Offered in alternate years.

Prerequisites: HST 201 or HST 234.

HST 334 Victorian and Edwardian England (4 credits)

The political, cultural, and intellectual life of England from 1837 to the outbreak of World War I. Offered irregularly.

HST 335 Twentieth Century Britain (4 credits)

The British adjustment to global wars, the later industrial revolution, mass democracy, and social change. Offered in alternate years.

HST 337 Hellenic Greece (4 credits)

Greek history from the Bronze Age to the Peloponnesian War. Identical with CLS 337. Offered in alternate years.

HST 339 Republican Rome (4 credits)

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

HST 340 Imperial Rome (4 credits)

Roman history from the principate of Augustus to the fall of the western empire. Identical with CLS 340. Offered in alternate years.

HST 341 Europe since 1914 (4 credits)

An analysis of Europe in world perspective since World War I. Offered every year.

HST 342 The Origins of Modern Germany (4 credits)

The ancient and medieval roots of German civilization, the political fortunes of the Holy Roman Empire and its member states, the development of the concept of German nationality, and the rise of the German nation-state in the nineteenth century. Offered in alternate years.

HST 343 Germany since 1870 (4 credits)

The history of the German nation-state, concentrating on constitutional and political developments in their social context. Offered every year.

HST 347 Tools of Historical Research (4 credits)

A course to acquaint students of history with the auxiliary sciences of that discipline, with special emphasis on historical bibliography and the use of the library. Offered in alternate years.

Prerequisite: Junior standing.

HST 348 Europe in the Eighteenth Century (4 credits)

A comparative analysis of European society, including such themes as the old regime in Europe, the beginnings of industrial development and the resistance to modernization, the Enlightenment as a political and social movement,

reform under the monarchy and the emergence of democratic ideologies, and the onset of the French Revolution. Offered in alternate years.

HST 349 France in the Age of Absolutism and Enlightenment (4 credits)

The ancient régime in France from the end of the wars of religion to the beginning of the Revolution (1589-1789). Offered in alternate years.

HST 350 European Intellectual History to 1800 (4 credits)

The main developments in European thought and their implications for art, literature and social change, from the God-oriented world views of the Middle Ages to the application of Newtonian scientific concepts in the eighteenth-century Enlightenment. Emphasis will be on the reading of original materials. Offered in alternate years.

HST 351 European Intellectual History since 1800 (4 credits)

New ways of thinking established by European intellectuals of the nineteenth and twentieth centuries, especially in their critiques of the traditional rationalist assumptions of earlier ages and the broad cultural implications of their evolutionary, utilitarian, or existentialist attitudes and beliefs. Emphasis will be on the reading of original materials. Offered in alternate years.

HST 352 Kiev and Muscovy (4 credits)

Russian history from the ninth to the seventeenth century with emphasis on the origins of the Kievan state and society, the struggle against the steppes, and the formation of a centralized Russia under the leadership of Moscow. Offered every third year.

Prerequisite: HST 251.

HST 353 Imperial Russia (4 credits)

Russian history from Peter the Great to the Bolshevik Revolution: the growth of Russian national power, westernization, serfdom and revolution. Offered in alternate years.

Prerequisites: HST 251 or HST 252.

HST 354 Soviet Russia (4 credits)

Russia and the Soviet Union from 1917 to the present: revolution and civil war, collectivization and industrialization, Stalinism, World War II, de-Stalinization, the Soviet Union and the world communist movement. Offered in alternate years.

Prerequisite: HST 252.

HST 359 Russian Intellectual History to Peter the Great (4 credits)

Main intellectual and cultural developments in Russia prior to Peter the Great. The Russian Church and religious thought, literature, and the development of political ideology will be emphasized. Offered in alternate years.

Prerequisites: HST 251 or HST 252.

HST 360 Russian Intellectual History since Peter the Great (4 credits)

Main intellectual and cultural developments since Peter the Great, with emphasis on the nineteenth century. Particular attention is devoted to the slavo-

philes, the westernizers, the populists and socialists, and several of the great realistic writers. Offered in alternate years.
Prerequisites: HST 251 or HST 252.

HST 363 History of Southern South America (4 credits)

The social, political and economic history of Argentina, Brazil and Chile in the nineteenth and twentieth centuries; frontier expansion and Indian warfare, slavery and Empire in Brazil, regionalism and nationalism, industrialization and urbanization, and international relations. Offered annually.

HST 365 The Response to European Colonialism (4 credits)

A comparative examination of the responses of the peoples of Africa and Latin America to European expansion, with emphasis on such themes as acculturation, resistance movements, nationalism, and modernization. Offered in alternate years.
Prerequisites: AS 064 or AS 068.

HST 366 Slavery and Race Relations in the New World (4 credits)

A comparative approach to the study of slavery in North America, Latin America, and the Caribbean, and to the present state of race relations in the three areas. Offered in alternate years.

HST 367 Pre-Columbian and Colonial Mexico (4 credits)

The scope and achievements of pre-Columbian Indian civilizations; the Spanish Conquest and its aftermath, the emergence of a multiracial society, the rise of creole nationalism and the achievement of political independence. Offered annually.

HST 370 China: Beginnings to Mid-T'ang, ca. 750 (4 credits)

China's prehistoric and classical foundations, the first phase of imperial unification, the Han intellectual and state synthesis, and the aftermath of Han collapse, with special attention given to the effects of Buddhist, foreign, and heterodox native influences in the subsequent development of the T'ang cosmopolitan universal state. Offered in alternate years.
Prerequisite: AS 062.

HST 371 China: Mid-T'ang to the Peak of Manchu Power, ca. 1800 (4 credits)

The institutional, intellectual, and aesthetic responses to the failure of T'ang cosmopolitanism, the elaboration of gentry economic controls, neo-Confucian orthodoxy, the literati ethos, and Chinese accommodations to the problems of foreign encroachment and foreign rule. Offered in alternate years.
Prerequisite: AS 062.

HST 373 Nineteenth Century China (4 credits)

Imperial China during the half century preceding the Opium War of 1839-42, China's growing crisis in the context of the massive Western impact during the second half of the nineteenth century, and the collapse of the traditional Chinese order in the first two decades of the twentieth century. Offered each year.
Prerequisite: AS 062.

HST 374 Nationalism and Communism in (4 credits)
China

The patterns of revolutionary nationalism in China from 1919 to the present, focusing on the Nationalist (Kuomintang) and Communist periods. Offered each year.

Prerequisite: AS 062.

HST 375 Topics in Chinese Intellectual (4 credits)
History

A historical investigation into Chinese philosophy from its emergence in the sixth century B.C. to the ascendancy of Confucianism during the Former Han Dynasty (208 B.C.-6A.D.). Offered in the Winter Semester.

HST 381 History of Early India (4 credits)

The history of India from the most ancient times to the coming of the Mughals in the early years of the sixteenth century. Offered in the Fall Semester.

HST 382 The Muslim Tradition in (4 credits)
India and Pakistan

The establishment of Muslim power and culture in South Asia, its accommodation with Hindu culture, the Mughal empire and its decline, and the rise of modern Islamic nationalism, leading to the creation of Pakistan and Bangladesh. Offered in alternate years.

HST 383 British Imperialism and (4 credits)
Hindu Nationalism in India, 1740-1947

Society and politics in eighteenth century India, changing patterns of imperial rule, the Hindu Renaissance, and nationalist politics, religious, liberal and Marxist. Offered every winter.

HST 386 African Socialism (4 credits)

The ideologies, tactics, and techniques of various recent socialist revolutions in Africa and the relation of African socialist aims to traditional and colonial Africa as well as to other forms of socialist thought and practice. Offered in Alternate years.

HST 387 Northwestern Africa (The (4 credits)
Maahrib) since 1830

The Maghrib from the time of the French occupation to the present. Offered at irregular intervals.

HST 388 Twentieth Century Africa (4 credits)

African resistance and nationalist movements from 1875 to the present and the development of Pan-Africanism and Negritude in colonial and contemporary times. Offered in alternate years.

Prerequisites: AS 064 or HST 287.

HST 391 Directed Readings in (4,8, or 12 credits)
History

Independent but directed readings designed for junior and senior majors in fields of history in which advanced courses are not available. Offered every semester.

Prerequisites: Permission of the Instructor.

The following courses are normally restricted to graduate students.

HST 591 Directed Reading (4 credits)

Directed individual research on specific topics.

HST 600 Comprehensive Examination (2 credits)

Graduate Colloquia

Intensive research and discussion on a significant period or broad topic in history. Each student will present the results of study as the basis of group discussions. May be repeated for credit.

HST 601 Colloquium in American History (4 credits)

HST 602 Colloquium in Latin American History (4 credits)

HST 603 Colloquium in European History (4 credits)

HST 604 Colloquium in African History (4 credits)

HST 605 Colloquium in East Asian History (4 credits)

HST 606 Colloquium in South Asian History (4 credits)

Research Seminars

Small-group seminar or individual research on a closely defined subject. Requirements include a research paper of moderate length. May be repeated for credit.

HST 691 Seminar in American History (4 credits)

HST 692 Seminar in Latin American History (4 credits)

HST 693 Seminar in European History (4 credits)

HST 694 Seminar in African History (4 credits)

HST 695 Seminar in East Asian History (4 credits)

HST 696 Seminar in South Asian History (4 credits)



DEPARTMENT OF LINGUISTICS

CHAIRMAN: WILLIAM SCHWAB

PROFESSOR: William Schwab (Linguistics and English)

ASSISTANT PROFESSORS: Peter J. Binkert (Linguistics and Classics); Daniel H. Fullmer (Linguistics and English)

INSTRUCTOR: Carl W. Johnson (Linguistics and Modern Languages)

ASSOCIATED FACULTY:

Prof.: Donald C. Hildum (Speech Communication and Linguistics)

Assoc. Prof.: John W. Barthel (German and Linguistics); Don Iodice (French and Linguistics)

Asst. Prof.: Carlo Coppola (Hindi-Urdu and Linguistics)

Linguistics, the science of language, is concerned with the systematic study of language, language history, comparison of languages, and with the designing of models for natural languages and the theoretical implications of such designs in language acquisition and learning theory. As recent research has indicated, linguistics plays a pivotal role in studies dealing with the nature of the mind. Rapid expansion of knowledge in linguistics has involved such fields as anthropology, computer science, language teaching, speech pathology, sociology, and dialectology, and has produced the new disciplines of biolinguistics, mathematical linguistics, psycholinguistics, sociolinguistics, and machine translation as exciting and viable fields.

The Department of Linguistics offers programs of study leading to the degree of Bachelor of Arts with a liberal arts major in linguistics, and concentrations in linguistics on a joint basis with certain other departments in the College of Arts and Sciences. Students majoring in linguistics may complete their general education requirements through courses chosen from departmental offerings, from University courses, or in Allport College, or New-Charter College. Programs should be developed in consultation with an adviser.

The linguistics major at Oakland University, with its cross-disciplinary thrust, is designed to serve students who desire a general education as well as those who may be disposed to graduate work in linguistics and related fields. For both groups it should provide a broad, yet rigorous, course in the nature of language and human behavior and give a deeper comprehension of the instrument that uniquely distinguishes man from all other living things. For students interested in careers in the teaching of language, dialectology, and second-language teaching at the primary or secondary school level, concentrations in linguistics are available together with a modified major in another department.

A secondary language arts major, approved by the College of Arts and Sciences and the School of Education in 1973, is now awaiting State certification. Interested students should consult the Department of Linguistics.

Programs for the Liberal Arts Major in Linguistics

Ten courses (40 credits) are required: seven courses in linguistics and three courses in a cognate field. Two of the seven courses in linguistics should be at the 100 or 200 level. Required courses include LIN 301 and 302. At least two courses must be selected from LIN 403, 404, and 410.

Cognates are available in the College of Arts and Sciences in the following fields: anthropology, classical languages, foreign languages, philosophy, and psychology. There is also a group of cognate studies, which emphasizes computer science, available in the School of Engineering. Other fields or special combinations may be approved by consultation with the departments concerned.

Cognates selected from anthropology should include a course in language in culture (LIN/AN 276). Cognates in English should include studies in the history and the structure of English (ENG 376 and 377). Cognates in classical languages and in modern languages should be in a second foreign language, not in the same immediate language family as that chosen to fulfill the requirements of the major. (No two modern Germanic or modern Romance languages, for example, would be acceptable.) Cognates in psychology should include a course in the psychology of communication (PSY 435). Cognates in philosophy should include a course in logic (PHL 370) and in philosophy of language (PHL 375). Some cognate courses, if carefully selected, may be used to fulfill general education distribution requirements.

Unless a concentration in speech communication has been selected, a liberal arts major in linguistics must complete two years' study, or the equivalent, of a foreign language, either classical or modern. The language requirement may be fulfilled by course work or examination demonstrating proficiency in the foreign language beyond the fourth semester level. Students for whom English is a second language may consider English as a foreign language for purposes of the language requirement. The department recommends that students who satisfy their language requirement with a modern Indo-European language consider studying a classical language (Latin or Greek) or a non-Indo-European language (Swahili, Hebrew, or Chinese) in addition.

LIBERAL ARTS MAJOR IN LINGUISTICS

(A Typical Program)

Semester 1

Learning Skills

LIN 176

Distribution Requirement

Distribution Requirement

Semester 3

Linguistics cognate

Foreign language (114)

Distribution Requirement

Elective

Semester 5

LIN 301

Foreign language (214)

Linguistics cognate

Elective

Semester 7

LIN 401

LIN 403

Distribution Requirement

Elective

Semester 2

Learning Skills

LIN 177

Distribution Requirement

Distribution Requirement

Semester 4

Linguistics cognate

Foreign language (115)

Distribution Requirement

Elective

Semester 6

LIN 302

Foreign language (215)

Distribution Requirement

Elective

Semester 8

Elective

LIN 404

Elective

Elective

Special Programs

In line with recent developments in the University, exceptionally well qualified students may arrange, with advisers,

special programs involving linguistics and other subjects and differing from the prescribed course sequences they would normally take upon declaring a major. For example, a student interested in sociology, anthropology, and linguistics might wish to arrange a viable program that provides the proper academic depth and appropriate training in all three areas. A student may also elect to graduate with a double major, one in linguistics and one in another subject, where the cognate area may serve partially to fulfill the requirements for the other major. Individual programs must be approved by a special adviser and the Committee on Instruction of the College of Arts and Sciences.

The Linguistics Major with a Concentration in Computer and Information Science

A modified linguistics major with a concentration in computer and information science is available for interested students. The concentration in computer and information science requires:

- (a) six courses (24 credits) in linguistics, and
- (b) four courses (20 credits) in computer and information science.

The courses in linguistics are the same as for the liberal arts major except that only one course at the 100 or 200 level is required.

The four courses in computer and information science must include CIS 182, CIS 183, CIS 382, and one elective.

In addition, the linguistics major with a concentration in computer and information science requires a course in symbolic logic (PHL 370) and at least one year of a foreign language.

The Linguistics Major with a Concentration in Speech Communication

A modified linguistics major with a concentration in speech communication is available for interested students. The concentration in speech communication requires:

- (a) six courses (24 credits) in linguistics, and
- (b) five courses (20 credits) in speech communication.

The courses in linguistics must include LIN 301, two of LIN 260, LIN 277, or LIN 335, two of LIN 401, LIN 404, or LIN 407, and one elective.

The five courses in speech communication must include SCN 201 and four electives, with SCN 303 highly recommended.

Programs for the Concentration in Linguistics

The concentration in linguistics is available on a joint basis with other departments in the College of Arts and Sciences. A wide range of such combinations is possible: Students may major in English, modern languages, philosophy, psychology, sociology, and anthropology and may concentrate in linguistics at the same time. (Other majors may also be considered.) But the student must first be admitted to a departmental major and secondly be accepted into the concentration upon application to the Department of Linguistics.

MAJOR IN ANTHROPOLOGY

The linguistics concentration for the anthropology major requires:

- (a) five courses (20 credits) in linguistics, and
- (b) five courses (20 credits) in anthropology.

The courses in anthropology must include AN 101 and AN 102, and any other three courses in anthropology. The five courses in linguistics should include LIN 276, LIN 301, LIN 401, LIN 404, and one other course in linguistics.

MAJOR IN CLASSICS

The linguistics concentration for the classics major requires:

- (a) five courses (20 credits) in linguistics, and
- (b) five courses (20 credits) in classics.

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

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

MAJOR IN ENGLISH

The linguistics concentration for the English major requires:

- (a) five courses (20 credits) in linguistics, and
- (b) six courses (24 credits) in English literature.

The courses in literature must include ENG 140 and any other five courses in English literature. The five courses in

linguistics should include LIN 301, LIN 302, LIN 403, LIN 404, and one elective, either in linguistics or a course in English language analysis or history, such as ENG 376 or 377.

MAJOR IN MODERN LANGUAGES (FRENCH, GERMAN, RUSSIAN, SPANISH)

The linguistics concentration for the French, German, Russian, or Spanish major requires:

- (a) five courses (20 credits) in linguistics, and
- (b) six courses (24 credits) in French, German, Russian, or Spanish language and literature beyond FRH, GRM, RUS, or SPN 215.

The modern language requirements are FRH, GRM, RUS, or SPN 311-312, 371, 372, 461 and one course at the 400 level. The five courses in linguistics should include LIN 301, LIN 302, LIN 403, LIN 404, and one elective. In addition, the modern language major must take FRH, GRM, RUS, or SPN 365, the applied linguistics of a particular foreign language.

MAJOR IN PHILOSOPHY

The linguistics concentration for a philosophy major requires:

- (a) five courses (20 credits) in linguistics, and
- (b) six courses (24 credits) in philosophy.

The six courses in philosophy must include PHL 101, PHL 370, and PHL 375. The five courses in linguistics should include LIN 301, LIN 404, and three other electives in linguistics.

MAJOR IN PSYCHOLOGY

The linguistics concentration for a psychology major requires:

- (a) four courses (16 credits) in linguistics, and
- (b) six courses (24 credits) in psychology.

Five of the six psychology courses must be PSY 146, PSY 231, PSY 351 or 352, PSY 353, and PSY 435. Arrangements may be made for a psycholinguistics major to substitute a linguistics or other cognate course for the unspecified sixth psychology course. The linguistics courses should be LIN 301, LIN 302, LIN 403, LIN 404.

MAJOR IN SOCIOLOGY

The linguistics concentration for the sociology major requires:

- (a) six courses (24 credits) in sociology, and
- (b) five courses (20 credits) in linguistics.

LIN 335 Psycholinguistics (4 credits)

A study of the psychology of language, the accommodation between the cognitive and physical structure of human beings and the structure of language, the nature of the language learning process, and the consequences of language use.

Prerequisites: One course in psychology and one course in linguistics, or permission of the Instructor.

LIN 360 Neurolinguistics (4 credits)

The neurology of language: essentials of neuroanatomy; neurological mechanisms underlying language; aphasia and kindred disorders of speech; the relationship of language to memory, intelligence, and cognition; language and mental retardation and psychological disorders.

LIN 365 Applied Linguistics (4 credits)

A series of sections in French, German, Russian, and Spanish are offered in this course. Identical with FRH, GRM, RUS, and SPN 365.

Prerequisites: LANG 262 or permission of the Instructor.

LIN 401 Phonetics (4 credits)

An introduction to articulatory and acoustic descriptions of spoken language, and training in the recognition and production of sounds found in languages other than English.

Prerequisite: LIN 301.

LIN 403 Phonology (4 credits)

A presentation of theory and application of phonological analyses with emphasis on original work.

Prerequisite: LIN 301.

LIN 404 Grammatical Analysis (4 credits)

A presentation of theory and application of morphological and syntactical analyses, with emphasis on original work.

Prerequisite: LIN 301.

LIN 407 Semantic Theory (4 credits)

An inquiry into contemporary efforts, since the publication of Chomsky's *Syntactic Structures*, to formulate and articulate a theory of meaning adequate for the analysis of natural language, with emphasis on the relation between syntactic and semantic analysis.

Prerequisites: LIN 301 and one of either LIN 404 or PHL 370 or PHL 375.

LIN 410 Studies in the Structure of a Language (4 credits)

A study of the structural aspects of an individual language to be determined by the instructor. Among the languages for study are French, German, Hindi-Urdu, Sanskrit.

Prerequisites: LIN 301 or permission of the Instructor.

LIN 428 The Teaching of English as a Foreign Language (4 credits)

A study of modern techniques of teaching pronunciation, grammar, and vocabulary. The preparation and use of language tests: laboratory techniques.

Prerequisites: LIN 301 or permission of the Instructor.

LIN 480 Seminar in Linguistics (4 credits)

Topics and problems selected by the instructor.

Prerequisites: LIN 301 and two LIN courses above 301, or permission of the Instructor.

LIN 490 Independent Study (4 credits)

Special research projects in linguistics.

Prerequisite: Permission of the Department of Linguistics.

DEPARTMENT OF MATHEMATICS

CHAIRMAN: GEORGE F. FEEMAN

PROFESSORS: Harvey J. Arnold; Louis R. Bragg; John W. Dettman; George F. Feeman; William C. Hoffman; G. Philip Johnson; James H. McKay; Harvey A. Smith

ASSOCIATE PROFESSORS: Ronald A. DeVore; Jon Froemke (on leave 1973-74); Donald G. Malm; Yel-Chiang Wu

ASSISTANT PROFESSORS: Robert Casady; J. Curtis Chipman; Robert Fontenot; Gerald Garfinkel; Louis J. Nachman; Marion Orton (on leave Fall, 1973); Irwin Schochetman; Robert Sharpley; Kent Westerbeck

LECTURER: Raymond P. Guzman

The Department of Mathematics offers programs of study leading to the degrees of Bachelor of Arts with liberal arts major in mathematics, Bachelor of Arts with secondary teaching major in mathematics, Master of Arts in mathematics, and Master of Arts in Teaching in mathematics. In addition, the Department offers courses which are required or are used as electives in other programs of the University. For further information on graduate programs of the Department, see the Graduate Bulletin.

Students electing the liberal arts major in mathematics or the secondary teaching major in mathematics may complete their general education requirement in the College of Arts and Sciences, in Allport College or in New-Charter College. They should make their choice in consultation with their departmental adviser and with the head of their chosen college.

A student with strong interest and ability in mathematics should consider taking MTH 190, 191, 290, and 291. (MTH 190 and 191 are for freshmen; MTH 290 and 291 are for sophomores.) These courses, which are to be taken concurrently with calculus, are designed to provide the student with an opportunity to experience mathematics on a more sophisticated level than is usually found in freshman and sophomore mathematics courses. The courses are independent of

each other; a student may take any one of them at the appropriate level without having taken any of the preceding ones.

Whether they be liberal arts majors or secondary education majors in mathematics, students are encouraged to take applied courses both inside and outside the department to become acquainted with the numerous ways in which mathematics is used. The greater the familiarity with applications of mathematics, the greater will be the possibilities of employment in a world which is becoming more mathematics-oriented each year. Courses in statistics, combinatorial mathematics, mathematical methods in the social sciences, numerical analysis, operations research, and mathematical science should be given high priority as electives within the major program. Concentrations or minors, or possibly even a second major, are available in computer science, the life sciences, the physical sciences, engineering, economics and management, the social sciences, and linguistics. For convenience, partial listings of suggested courses for various applied options are given below. Mathematics majors are advised to speak to department faculty before planning their programs.

Proficiency Examinations and Advanced Placement

Well-prepared freshmen who intend to major in mathematics should plan to take MTH 154 as early as possible. A proficiency examination will be given by the Department of Mathematics, and students judged ready for calculus may enroll in MTH 154. Others must first pass MTH 132-133 or one of the options listed under MTH 134; the Department of Mathematics will recommend the proper precalculus course in such cases for the individual student. MTH 132-133 may be taken only with the permission and advice of the Department of Mathematics.

Students who have not had trigonometry should plan to take a precalculus course before enrolling in MTH 154, regardless of the results of the proficiency examination.

Freshmen who have had calculus in high school may apply to the Department for advanced placement. Those having scores of 4 or 5 on the College Entrance Examination Board advanced placement test will receive credit for MTH 154-155. Others, including those with scores of 3, will receive credit or advanced placement as deemed appropriate for their backgrounds.

Requirements for the Liberal Arts Major in Mathematics

Forty (40) credits in mathematics are required for the major. Each student must take one of MTH 331, 351, or 451, and one of MTH 375 or 475 in his/her program.

The honors courses MTH 190, 191, 290, and 291 may count toward the major as separate one-credit courses. Apart from these honors courses only MTH 154, 155, 254, 322 and courses with MTH 254 as prerequisite may be used to satisfy the major requirement.

Two science courses (8 credits) are required; these are to be taken in the same department. Four courses (16 credits) in a subject related to mathematics are also required. (These courses must be taken in a single area.) If they are taken in a science they may be used simultaneously to satisfy the requirement in science.

Students planning to do graduate work in mathematics should take MTH 451 and MTH 475 in preference to MTH 351 and MTH 375. In addition, they should take MTH 452, 461, 476, and as many other mathematics courses, including courses at the 500 level, as their programs permit.

Students who are planning to do graduate work in mathematics should be aware that many graduate programs require reading knowledge of at least one foreign language for study beyond the master's degree level; it is important that such students include language study in their undergraduate program.

Requirements for the Secondary Teaching Major in Mathematics

Course Requirements:

Thirty-six (36) credit hours of course work in mathematics are required. Twenty-four hours (six courses) are required as follows:

- 2 semesters of elementary calculus (MTH 154-155)
- 1 semester of linear algebra (MTH 254)
- 1 semester of analysis (MTH 351 or 451)
- 1 semester of abstract algebra (MTH 375 or 475)
- 1 semester of geometry (MTH 361)

The other twelve hours may be chosen from among MTH 255 (Multivariable Calculus) or the Department offerings numbering 322 or above. Each student must select one of

MTH 322, 325, or 335 as part of his/her program. Only those courses which satisfy the liberal arts major in mathematics may be used to satisfy this requirement.

A minor of 20 or 24 credits is required. If the minor is taken in one department, five courses (20 credits) are required. If the minor is taken in an area, six courses are required. Courses may be used to satisfy simultaneously minor requirements and distribution requirements.

It is recommended that secondary majors take a course on reading at the secondary level with specific work on reading problems in mathematics, a course on learning theory, and a course on child growth and development with emphasis on the teenage years.

Methods and Internship:

Secondary Education mathematics majors are invited to participate in tutorial efforts as early as the sophomore year. The requirements are as follows:

Methods and Internship:

Secondary Education mathematics majors are invited to participate in tutorial efforts as early as the sophomore year. The requirements are as follows:

1. Sophomore and/or Junior Year

- a. Students take Ed 244-245 (8 credits total).
- b. Students provide tutorial assistance at Oakland, with guidance from Math. faculty, in courses such as MTH 120, 132, 133, 134, or the Academic Support Center. Each student in the program **must** register for MTH 497 Apprentice Teaching for four (4) credits either in the fall or winter term.
- c. Winter term, Junior year (or after the accumulation of 80 credits toward graduation). Each student in the program **must** register for Ed 428 Math Methods (4 credits), a combination of methods work at Oakland and tutorial work in selected public schools, the latter with guidance from teachers in those schools.

2. Senior year (or after the accumulation of 96 credits toward graduation) — Fall Term Only.

Students do internship in the field. Each student will spend a full semester as an intern. A weekly seminar at Oakland will be required with this internship. Each student will receive 12 credits for the semester under Ed 455 Math Internship.

Requirements for the Secondary Teaching Minor in Mathematics

Five courses (20 credits) in mathematics are required, including MTH 154-155. It is recommended that the other courses be selected from MTH 226, 255, 322, 325, 326, 331, 335, 336, 351, 355, 361, and 372, 373, 375, 415, and 422. (Only MTH 154, 155, and courses with MTH 155 as a prerequisite may be used to satisfy this requirement, except that the sequence MTH 190, 191, 290, 291 or four 1-credit courses can be substituted for one 4-credit course.)

Suggestions For Applied Course Options For Mathematics Majors

There are several applied options in the form of course combinations open to mathematics majors within the Mathematics Department as well as in other departments. To make students more aware of their existence, they are mentioned here. These options exercised in various combinations can enhance greatly a student's mathematical versatility, flexibility, and employability. In order to get the best combinations to fit their interests, students are advised to consult Department faculty members before planning their programs.

A. Mathematical Science

1. Statistics and Probability

Statisticians do a variety of things from collection of data to development of mathematical models of random phenomena. Their activities are as applied or as theoretical as they desire. They can make contributions in the physical sciences, the social sciences, public health, insurance, management, public works, and other areas including theoretical statistics.

Suggested Courses: MTH 226, 325, 326, 425, 525, 526

2. Operations Research

Operations Research is the application of mathematical and scientific techniques to the problems of organizations. Students interested in this area should consider taking courses in engineering, economics, and management as well.

Suggested Courses: MTH 322, 422, 463

3. Mathematical Science

Mathematical science is the study of dynamical systems and the fundamental mathematical structures of the physical, life, and social sciences.

Suggested Courses: MTH 331, 355, 431, 435, 465, 541, 542

B. Computer and Information Science

The computer is with us. The science of computing is open for development. Those involved in it place mathematical activity in the context of science as they make experimental and theoretical attacks on a wide variety of problems.

For students majoring in mathematics, the requirements for the Concentration in Computer Science are 16 credits in Computer and Information Science (CIS) courses and four courses chosen from among MTH 322, MTH 325-326, MTH 331 or 351, MTH 335-336, or their 400-level equivalents. At least one 2-term sequence is required. The mathematics courses taken may also be used to satisfy some of the requirements of the liberal arts or secondary education major in mathematics. It is recommended that the sequence CIS 182-183-382 be completed early in the program.

Students should note that MTH 263 Discrete Mathematics is on the list of required courses for the CIS major.

C. Natural Sciences and Engineering

1. Biological Sciences

Some areas of biology are greatly expanded and improved by knowledge and proper use of appropriate mathematical methods, and a few are quite dependent on mathematics. Mathematical biology has arisen in recent years from the cross-breeding of the two areas. It deals with the mathematical interpretation of biological processes in physiology, genetics, ecology, and other areas.

Suggested Courses: BIO 104-105, 108, 221, 225, 341, 473

2. Physics

Many opportunities are available to persons who can combine mathematics and physics. They can use their talents toward the solution of a wide variety of problems in the physical sciences and technology.

Suggested Courses: PHY 151-152, 331, 361, 371, 381, 482, 562

3. Chemistry

Mathematics and chemistry come together in a variety of ways, particularly in the areas of physical and analytical chemistry. Problems related to electron transfer are of special interest.

Suggested Courses: CHM 115, 305, 324, 344, 345, 422, 444

4. Engineering

Mathematics and engineering have a large common ground in the areas of electronics and control, electro-

magnetics, energy flows and materials science. They complement each other strongly in computer and information science and in operations research. The latter refers to the process of developing theories and techniques to analyze mathematical models of real world phenomena, both random and deterministic.

Suggested Courses: EGR 215, 225, 344, 345, 361, 425, 427, 431, 445, 448, 461

D. Economics and Management

This general area is concerned with the application of mathematical methods to the solution of problems in areas such as inventory control, investment analysis, production control, marketing research, actuarial science, and economic analysis.

Suggested Courses: MGT 200, 330, 340, 402, 405, 422
ECON 100, 216, 217, 300, 350, 405

E. The Social Sciences

1. Sociology and Anthropology

Those interested in mathematical applications to sociology and anthropology deal with problems involving population analysis, human behavior, group characteristics for various socio-economic levels, and such things. The hybrid field mathematical sociology is relatively new on the scene and is open for development.

Suggested Courses: SOC 100, 201, 202, 205, 231, 255
AN 102, AN 221, AN 315

2. Psychology

Mathematical psychology is yet another hybrid field which has come into existence in recent years. Of special interest to teachers of mathematics or those interested in mathematics education within this broad field is the rapid growth of learning theory. Theories of learning mathematics are under intensive study and development at the present time.

Suggested Courses: PSY 146, 335, 351, 352, 355, 435, 541, 551

Mathematics has also found its way into political science and other social sciences. It has been known to provide a solid foundation for law school.

Course Offering

Students should realize that while the Department will make every attempt to adhere to the scheduling of courses as presented in this catalog, special circumstances may occasionally necessitate changes. They should further realize that a

number of the courses will be offered at times other than those indicated including, in particular, the Spring and Summer Sessions.

**MTH 120 Preparation for Mathematics for (4 credits)
the Life and Social Sciences**

A one-semester study of topics from algebra and geometry needed for entry into MTH 121 or MTH 123. Graded on an S/N basis. Requires permission of the Department.

**MTH 121-122 Introductory Mathematics (4 credits each)
for the Social Sciences**

Elementary set theory, number systems, functions, linear systems, linear programming, matrices, and the basic concepts, theorems, and applications of calculus.

Prerequisites: Three years of high school mathematics.

**MTH 123-124 Introductory Mathematics (4 credits each)
for the Life sciences**

Emphasis on topics from elementary probability theory, statistics, and elementary calculus with applications to biological problems. Introduction to the computer.

Prerequisites: Three years of high school mathematics.

**MTH 125 Introduction to Probability and (4 credits)
Statistics**

Elementary set theory, sample spaces, combinatorics, random variables, Chebyshev's inequality, Bernoulli trials, binomial distribution, joint distributions, and introduction to statistics. Offered on sufficient demand.

Prerequisites: Three years of high school mathematics.

MTH 132-133 Precalculus (4 credits each)

A one or two semester study, as needed, of material required for entry into MTH 134 or MTH 154, including selected topics from algebra, geometry and trigonometry. Graded on an S/N basis. Requires permission of the Department.

MTH 134 Precalculus Mathematics (2-3-4 credits)

A self-paced student-professor contract course covering material needed as a prerequisite to MTH 154-155. Course topics include algebraic manipulation, analytic geometry, elementary algebraic functions, exponential and logarithmic functions, trigonometric functions. Students placing in MTH 134 must complete one of the following 4-credit options before taking MTH 154: 1) MTH 134 (4 credits), 2) MTH 134 (3 credits), MTH 136 (1 credit), 3) MTH 134 (2 credits), MTH 135 (1 credit), MTH 136 (1 credit). Graded S/N.

Prerequisite: Placement is determined by proficiency examination.

MTH 135 Elementary Functions (1 credit)

A continuation of Math 134 for those students receiving 2 credits in Math 134. A study of functions and their properties including algebraic functions, exponential and logarithmic functions. Usually taken concurrently with MTH 136. Graded S/N.

Prerequisite: MTH 134 (2 credits) or satisfactory performance on placement examination.

MTH 136 Trigonometric Functions (1 credit)

A continuation of Math 134 for those students receiving 3 credits in MTH 134 or may be taken concurrently with MTH 135. A study of the trigonometric functions. Graded S/N.

Prerequisite: MTH 134 (3 credits), satisfactory performance on proficiency examination, or may be taken concurrently with MTH 135.

MTH 154-155 Calculus (4 credits each)

A comprehensive study of analytic geometry, limits, differentiation and integration of functions of one real variable. Each is offered in the Fall and Winter Semesters; MTH 155 is also offered in the Spring Session.

Prerequisites: One of the options listed in MTH 134 or satisfactory performance on a proficiency examination.

**MTH 185-186 Mathematics—an (4 credits each)
Exploration into Undergraduate Topics**

An introduction to topics selected from probability, calculus, linear algebra, group theory, number theory, abstract algebra, topology, projective geometry, logic and foundations. The student will be expected to acquire familiarity and experience with abstract reasoning as it is applied in various areas of mathematics.

Prerequisites: Three years of high school mathematics and permission of the instructor.

MATH 190 Topics in Mathematics (1 credit)

Intended to provide the superior student with an introduction to the type of abstract reasoning used in advanced courses in mathematics. The course will be organized around one or more topics chosen from various areas of mathematics. Enrollment is limited to freshmen. Offered in the Fall Semester.

Prerequisite: Permission of the Department. MTH 154, 155, 254, or 255 must be taken concurrently.

MATH 191 Topics in Mathematics (1 credit)

Similar to MTH 190. Enrollment limited to freshmen. Offered in the Winter Semester.

Prerequisite: Permission of the Department. MTH 155, 254, or 255 must be taken concurrently.

MTH 226 Applied Statistics (4 credits)

Introduction to statistics as applied to the physical, biological, and social sciences and to engineering. Applications of special distributions, non-parametric techniques, regression analysis, and analysis of variance.

**MTH 254 Intermediate Calculus and (4 credits)
Linear Algebra**

An introduction to linear analysis. Vectors, linear equations, linear transformations, matrices, determinants, eigenvalues, linear differential equations. Offered in the Fall and Winter Semesters.

Prerequisite: MTH 155.

MTH 255 Intermediate Calculus (4 credits)

A study of infinite series, multiple integration, differential calculus of scalar and vector fields, line and surface integrals. Offered in the Fall and Winter Semesters.

Prerequisite: MTH 254.

MTH 263 Discrete Mathematics (4 credits)

An introduction to discrete mathematical structures with particular emphasis on their application to computer and information science. Topics will be drawn from the areas of set theory and relations, Boolean algebras, strings, and graphs. Some prior programming experience is recommended. Course is required for CIS majors.

Prerequisite: MTH 121 or MTH 154.

MTH 290 Topics in Mathematics (1 credit)

Similar to MTH 190. Enrollment limited to sophomores. Offered in the Fall Semester.

Prerequisite: Permission of the Department. MTH 254 or 255 must be taken concurrently.

MTH 291 Topics in Mathematics (1 credit)

Similar to MTH 190. Enrollment limited to sophomores. Offered in the Winter Semester.

Prerequisite: Permission of the Department. MTH 255 must be taken concurrently.

MTH 314 Structure of Number Systems (4 credits)

Emphasizes the logical structure of the real number system. Properties of the natural numbers, integers, rational numbers, and real numbers are carefully proved. Computational techniques and teaching methods which pertain to the mathematics of the elementary grades. Enrollment is limited to majors in elementary education. Not open to freshmen.

Prerequisites: Two years of high school mathematics.

MTH 315 Experiences in Mathematics (4 credits)

Statistical notions used in education. Methodology involving preparation of lesson plans and mathematics laboratory materials. Enrollment is limited to majors in elementary education. Not open to freshmen.

Prerequisite: Two years of high school mathematics.

MTH 316 Topics in Geometry (4 credits)

An informal approach to geometry including topics selected from Euclidean geometry and transformation geometry with emphasis on ruler and compass constructions and the concept of symmetry. Enrollment is limited to majors in elementary education. Not open to freshmen.

Prerequisites: Two years of high school mathematics.

MTH 322 Mathematical Models in the Social Sciences (4 credits)

Formulation in mathematical terms of phenomena from the social sciences, solution of the resulting mathematical problems, and the interpretation of results. Models will be drawn from economic theory, ecology, theoretical sociology, and management science.

Prerequisites: MTH 122 or 154 or permission of the Department.

MTH 325-326 Introduction to Mathematical Statistics (4 credits each)

A study of random variables and distributions, random sampling, point estimation, interval estimation, tests of hypotheses, regression, and distribution-free methods. The theory is illustrated through applications to various fields.

Prerequisite: MTH 255.

MTH 331 Advanced Calculus (4 credits)

Review of vectorial concepts and formalism. Differential calculus of R^n . Differential forms, vector integral theorems, and Stokes' Theorem. Advanced topics in infinite series. Improper integrals and Laplace transforms. Computational as well as theoretical aspects will be emphasized. (This is an applied math alternative to MTH 351.)

Prerequisites: MTH 254 or MTH 255.

MTH 335-336 Introduction to Numerical Analysis (4 credits each)

An introduction to mathematical methods appropriate to computer work. Topics treated include interpolation, approximation, quadrature, solution of differential equations, and matrix computation.

Prerequisites: MTH 254 for 335; MTH 255 for 336.

MTH 351 Introduction to Analysis (4 credits)

A development of the properties of functions of one real variable, including a study of sequences, limits, continuity, differentiation, and integration.

Prerequisite: MTH 254.

MTH 352 Complex Variables (4 credits)

Analytic functions, integral theorems, series expansions, and theory of residues.

Prerequisite: MTH 255.

MTH 355 Ordinary Differential Equations With Applications (4 credits)

First order equations, systems of equations of first order, linear equations, power series methods, linear second order equations, self-adjoint equations.

Prerequisites: MTH 254 or permission of the Department.

MTH 361 Geometric Structures (4 credits)

A study of topics from Euclidean geometry, projective geometry, non-Euclidean geometry, and transformation geometry.

Prerequisite: MTH 254.

MTH 372 Number Theory (4 credits)

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

Prerequisite: MTH 254.

MTH 373 Advanced Matrix Algebra (4 credits)

Matrices, determinants, inverse matrix, linear systems, matrix calculus, Jordan forms, special matrices, with applications.

Prerequisite: MTH 254.

MTH 375 Introduction to Abstract Algebra (4 credits)

An introduction to the basic concepts of abstract algebra, including groups, rings, and fields.

Prerequisite: MTH 254.

MTH 405 Special Topics (2 or 4 credits)

Advanced study of some topic in mathematics. May be taken more than once.

Prerequisite: Permission of the Department.

MTH 410 Elementary School Mathematics and the Computer (4 credits)

Selected topics in mathematics useful to elementary school teachers in line with current curriculum developments. Computer assisted programs will be emphasized.

Prerequisites: MTH 314, or permission of the Department. Enrollment is limited to majors in elementary education with a math/science concentration.

MTH 415 Foundations of Mathematics (4 credits)

An examination of the logical foundations of mathematics including analysis of the axiomatic method, basic set theory, cardinal and ordinal numbers, and the axiom of choice.

Prerequisites: MTH 351 or MTH 451 or permission of the Department.

MTH 416 Concepts of Geometry (4 credits)

A development of geometry from an algebraic and metric viewpoint, concentrating on Euclidean geometry. Especially appropriate for Master of Arts in Teaching candidates.

Prerequisite: Permission of the Department.

MTH 422 Mathematical Methods in Operations Research (4 credits)

Decision problems in operations research, classical optimization techniques, mathematical programming, queueing theory, game theory and decision making, graphs and networks.

Prerequisites: MTH 331, MTH 373, or permission of the Department.

MTH 425 Probability (4 credits)

Combinatorial analysis, conditional probability, random variables, generating functions, recurrent events, random walk problems, Markov chains, and stochastic processes.

Prerequisites: MTH 325 or permission of the Department.

MTH 431 Methods of Mathematical Physics (4 credits)

Series solution of ordinary differential equations, special functions, separation of variables in various coordinate systems, boundary value problems, eigenvalue problems, Fourier series and integrals, Laplace transforms.

Prerequisite: MTH 255.

MTH 435 Introduction to Mathemathematical Science (4 credits)

The alegbraic structures of scientific phenomena. Differential equations and dynamical systems. Partial differential equations of the physical and life sciences. Introduction to mathematical modeling.

Prerequisite: MTH 255.

MTH 451-452 Analysis (4 credits each)

An introductory course in real analysis. Topics covered include the topology of \mathbb{R}^n , limits, continuity, differentiation, Riemann integration, uniform continuity and convergence, Riemann-Stieltjes integration, and differentiation and integration in \mathbb{R}^n . MTH 451 is offered in the Fall Semester; MTH 452 is offered in the Winter Semester.

Prerequisite: MTH 255.

MTH 461 General Topology (4 credits)

A study of topological spaces and continuous functions. Separation and countability properties, connectedness, compactness, and local properties will be covered. Offered in the Fall Semester.

Prerequisites: MTH 351 or MTH 451 or permission of the Department.

MTH 463 Graph Theory and Combinatorial Mathematics (4 credits)

An introductory course in combinatorics. Topics covered will include techniques of enumeration, fundamental concepts of graph theory, and applications to transport networks, matching theory, and block design.

Prerequisite: MTH 254.

MTH 465 Differential Geometry (4 credits)

Theory of curves and surfaces in Euclidean space with an introduction to the theory of matrix Lie groups.

Prerequisite: MTH 255.

MTH 475-476 Abstract Algebra (4 credits each)

Algebra of sets and mappings, groups and homomorphisms, rings and ideals, factorization and divisibility, vector spaces, linear transformations, fields and field extensions. MTH 475 is offered in the Fall Semester; MTH 476 is offered in the Winter Semester.

Prerequisite: MTH 254.

MTH 490 Independent Study (2 or 4 credits)

Research on some mathematical topic.

Prerequisite: Permission of the Department.

MTH 497 Apprentice College Teaching (2 or 4 credits)

Open to any well-qualified upperclassman who obtains consent of a faculty member to assist in presenting a regular college course. The apprentice should be capable of assuming limited classroom teaching duties. Required of secondary education math majors.

Prerequisite: Permission of the Department.

MTH 504 Review of Abstract Ideas (4 credits)

This course is a review of mathematical concepts, including topics from set theory, logic, number theory, algebra, and analysis. It is intended to be a transitional course for those who are interested in the MAT program but need refresher work. It may not be used for credit toward the degree.

Prerequisite: Permission of the Department.

MTH 510 The Secondary Mathematics Curriculum (4 credits)

This is a seminar course which will examine in depth some of the problems of the secondary mathematics curriculum. Topics discussed will be determined jointly by the instructor and the students. Emphasis will be in the role and responsibility of the secondary teacher in developing the curriculum.

Prerequisite: Permission of the Department.

MTH 511 Mathematics for the Elementary School Teacher II (4 credits)

Study of the structure of the real number system, elementary number theory, introduction to abstract mathematical structures.

Prerequisite: Permission of the Department.

MTH 512 Mathematics for the Elementary School Teacher II (4 credits)

Study of set theory, logic, probability theory, statistics, and topics in geometry.

Prerequisite: Permission of the Department.

MTH 513 Topics in Elementary School Mathematics (4 credits)

Topics in elementary mathematics selected in keeping with the latest trends in elementary school curriculum reform. Methods of teaching these topics are studied simultaneously with the topics themselves for the purpose of creating appropriate curriculum and testing materials.

Prerequisites: MTH 314, 315, and 316 or MTH 511 and 512 or permission of the Department.

MTH 514 Concepts in Abstract Algebra (4 credits)

Designed for Master of Arts in Teaching candidates, Includes topics from groups, rings, fields, matrices, linear transformations, and vector spaces, Offered every other year. Alternates with MTH 517.
Prerequisite: Permission of the Department.

MTH 516 Computers and Secondary Mathematics (4 credits)

This course is an introduction to the computer with emphasis on use of the computer in secondary mathematics courses, along with selected mathematics laboratory activities. Especially appropriate for Master of Arts in Teaching Candidates.
Prerequisite: Permission of the Department.

MTH 517 Concepts in Analysis (4 credits)

Designed for Master of Arts in Teaching candidates. Includes a study of real and complex numbers, functions, limits, differentiation, integration, and infinite series, with emphasis on careful proofs of theorems. Offered every other year. Alternates with MTH 514.
Prerequisite: Permission of the Department.

MTH 519 Linear Mathematics and Mathematical Models (4 credits)

This course will include topics from linear algebra, game theory, and linear programming with applications to the social sciences. Especially appropriate for Master of Arts in Teaching candidates.
Prerequisites: MTH 254 or permission of the Department.

MTH 525-526 Probability and Statistics (4 credits each)

Combinatorial analysis, random variables, central limit theorem, recurrent events, distribution theory, sampling, statistical estimation, hypothesis testing, regression analysis, analysis of variance, and applications.
Prerequisite: Permission of the Department.

MTH 531 Mathematical Methods in Engineering I (4 credits)

Vector spaces and matrices, eigenvalue problems, applications to systems of differential equations, numerical methods in linear algebra. Infinite series, Taylor's series, power series methods in differential equations. Offered in the Fall Semester.
Prerequisite: Permission of the Department.

MTH 532 Mathematical Methods in Engineering II (4 credits)

Functions of several variables, vector field theory, partial differential equations, boundary value problems, Fourier series, and Fourier integrals. Offered in the Winter Semester.
Prerequisite: Permission of the Department.

MTH 541-542 Advanced Mathematical Science (4 credits each)

Structure of dynamical systems. Application to mechanics, wave motion, diffusion, and statistical mechanics. Dynamical systems and control theory in economics and the life sciences. Fundamental mathematical structures of the physical, life, and social sciences. The role of probability and statistical inference.
Prerequisites: MTH 465 or permission of the Department.

MTH 551-552 Real Analysis (4 credits each)

The general theory of measure and integration, including development of the Lebesgue integral, the classical Banach spaces, and elements of functional analysis.

Prerequisite: MTH 452.

MTH 555-556 Complex Analysis (4 credits each)

Analytic functions, Cauchy's theorem, representation theorems, analytic continuation, Riemann surfaces, conformal mapping.

Prerequisite: MTH 452.

MTH 561-562 Topology (4 credits each)

MTH 561 is an introduction to algebraic topology. Topics covered include elementary homotopy and homology theory. MTH 562 will cover various topics in algebraic and general topology at the discretion of the instructor.

Prerequisites: MTH 476 and MTH 461.

MTH 565 Topological Algebraic Structures (4 credits)

A brief survey of topological groups, vector spaces, and algebras followed by detailed study of one or more special cases, such as locally compact groups, Lie groups, Lie algebras, Banach spaces, or Banach algebras.

Prerequisite: Permission of the Department.

MTH 571-572 Algebra (4 credits each)

Group theory, rings and modules, linear and multilinear algebra, and field extensions. Emphasis is placed, where possible, on categorical properties and functorial relationships.

Prerequisite: MTH 476.

**MTH 590 Directed Reading and (2, 4, 6, or 8 credits)
Research**

Prerequisite: Permission of the Department



DEPARTMENT OF MODERN LANGUAGES AND LITERATURES

CHAIRMAN: NORMAN SUSSKIND

PROFESSORS: Alfred J. DuBruck (French); Helen Kovach (Russian); Carmine R. Linsalata (Spanish); Richard A. Mazzara (French); Jack R. Moeller (German); Robert E. Simmons (German); Norman Susskind (French); Amitendranath Tagore (Chinese)

ASSOCIATE PROFESSORS: John W. Barthel (German); William C. Bryant (Spanish); Dolores M. Burdick (French); Renate Gerulaitis (German); Dmytro Ijewliw (Russian); Don R. Iodice (French); Kathryn M. McArdle (Spanish); Munibar Rahman (Hindi-Urdu); Carmen M. Urla (Spanish)

ASSISTANT PROFESSORS: Carlo Coppola (Hindi-Urdu); Jerry M. Freeman (Russian); William D. Jaymes (French); John Marney (Chinese); David Saint-Amour (French)

INSTRUCTORS: Mariano Pallares (Spanish)

SPECIAL INSTRUCTORS: Cordell W. Black (French); Lee M. Corrigan (Russian); Anna R. Massacesi (Spanish); Norbert Noeldechen (German); Shih-Chen Peng (Chinese)

VISITING LECTURER: Joshua Chorowsky (Hebrew)

ASSOCIATE FACULTY: Instructor, Carl W. Johnson (Swahili) Linguistics and Modern Languages

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

Students whose main interests lie in other fields may wish to investigate the advantages of combining them with competence in a foreign language. Today the thorough knowledge of a foreign language has much practical validity in Area Studies, Economics, Political Science, etc. Students interested in study abroad, graduate work, or non-academic careers may get assistance in the Department from special advisers who are familiar with the possibilities in these areas.

A variety of approaches is used. In classes aimed at developing ability to speak, read, and write, instruction is integrated with work in a complete language laboratory. Most intermediate and advanced courses are conducted in the language concerned. In French, Spanish, German and Russian there are courses where attention is focused on reading. Because in these courses no time is devoted to aural comprehension, writing, or speaking, progress in the single remaining skill can be much faster. Some of these courses use programmed material, which permits the student to move ahead at his or her own pace.

The selection of language to study should be a reasoned, not a random one. It is usually best to continue with a language studied in high school. However, if students wish to learn a language not widely taught at the secondary level, they should not hesitate to change. Those who need advice about these choices are urged to consult with a member of the Department.

Placement Examinations

Two language tests are administered by the Orientation Office. The Modern Language Aptitude Test is designed to indicate aural ability. Test results are used in helping students to select the 101 or 114 series courses in French, German, and Spanish. Students who enter Oakland University with previous study in French, German, or Spanish take the Placement Examination. This examination tests skills in the specific foreign language in order to insure placement at a level commensurate with the student's ability.

The Department of Modern Languages and Literatures offers programs of study leading to the degree of Bachelor of Arts with the following majors: the liberal arts major in a modern language; the liberal arts major in a modern language with a concentration in linguistics or area studies; the liberal art majors in Chinese language and civilization, in Latin American languages and civilization, and in Russian language and civilization; and the secondary teaching major in a modern language. The Department also offers a secondary teaching minor in a modern language and a modern language concentration for the elementary teacher. Students may, with the aid

of an adviser, plan individual programs to satisfy the degree requirements.

Requirements for the Liberal Arts Major in a Modern Language

The requirement is nine courses (36 credits) beyond 215 in the chosen language, its culture, and its literature. Ordinarily these include two sequences, Composition and Conversation 311-312 and Introduction to Literature 371-372 (the sequences may be taken concurrently), and five advanced courses at the 300-499 level. German majors are expected to take ENG 140 in their second or third year. Students are urged to elect courses in other literatures, history, philosophy, art, linguistics, and area studies related to their major. Those planning to do graduate work are strongly urged to begin study of a second language to be recommended by the Department.

Requirements for the Liberal Arts Major in a Modern Language with a Concentration in Linguistics

A modified major in a modern language with a concentration in linguistics is available for interested students. For concentrations in French and linguistics, German and linguistics, Russian and linguistics, and Spanish and linguistics.

Requirements for the Liberal Arts Major in Chinese Language and Civilization

The requirement in Chinese for this major is eight courses (36 credits), ordinarily CHE 114-115, 214-215, and four others selected from departmental offerings in consultation with an adviser. Five China area courses (20 credits) beyond UC 062 and including China area courses (20 credits) beyond UC 062 and including AS 490 are also required. For more information on this program, see the programs offered by the Language and Area Center for East Asia on p. 234 of this catalog.

Requirements for the Liberal Arts Major in Latin American Languages and Civilization

The requirement in Spanish for this major is six courses (24 credits) beyond SPN 214-215 selected from departmental offerings in consultation with an adviser. Five additional courses (20 credits), including AS 490, focused on the Latin American area and chosen from appropriate offerings from other departments within the College of Arts and Sciences, are also required.

An alternative language requirement for this major is four courses (16 credits) in Spanish beyond SPN 214-215, and three courses (15 credits) in Portuguese language and literature. Other combinations of languages used in Latin America, such as French, (with Spanish), will be considered.

Requirements for the Liberal Arts Major in Russian Language and Civilization

The requirement in Russian for this major is eight courses (36 credits), ordinarily RUS 114-115, 214-215, and four others selected from departmental offerings in consultation with an adviser. Five area courses (20 credits) selected from Slavic studies course offerings and including AS 490 are also required. For more information on this program, see the Slavic studies program on p. 236 of this catalog.

Requirements for the Secondary Teaching Major in a Modern Language

The requirement is eight courses (32 credits) beyond 215 in the chosen language and its literature (French, German, Russian, Spanish). (No teaching major is offered in Chinese.) Ordinarily these include two sequences, Composition and Conversation 311-312 and Introduction to Literature 371, 372 (the sequences may be taken concurrently), 365, 461 and two other courses at the 400-499 level. German majors are expected to take ENG 140 in their second or third year. In addition, 20 credits in education are required: ED 244, 245, ED 428, and ED 455.

Requirements for the Secondary Teaching Minor in a Modern Language

The requirement is four courses (16 credits) in the chosen language beyond 215. These normally include Composition and Conversation 311-312 and Advanced Composition and Conversation 461. The fourth course usually recommended is 365, but 371 or 372 may be taken in its place. Students are strongly urged to take as many additional courses at the 300-499 level as their schedules will permit.

Requirements for an Elementary Teaching Concentration

The modern language concentration is designed for students who wish to teach a foreign language in the elementary grades or at the junior high school level. The requirements are the same as those for the teaching minor (above). For complete details on other requirements, including courses in education, see p. 285.

Chinese Language and Literature**CHE 114-115 First Year Chinese (5 credits each)**

An introduction to modern Mandarin Chinese (Kuo-yu), emphasizing both conversation and reading.

114 is beginning Chinese; 115 is second semester.

CHE 214-215 Second Year Chinese (5 credits each)

Continued study of Kuo-yu with increasing emphasis on reading and composition. May be conducted as a tutorial.

Prerequisites: CHE 114-115 or permission of the instructor.

CHE 310 Literary Chinese (4 credits)

Studies based upon literary texts of Confucius, Mo Tzu, etc.

Prerequisites: CHE 215 or permission of the instructor.

CHE 312 Advanced Pai-hua (4 credits)

This will be an intensive course in spoken colloquial Chinese, with emphasis on grammatical constructions and sentence patterns.

Prerequisites: CHE 215 or permission of the instructor.

CHE 320 Readings in Chinese Newspapers (4 credits)

Selections from newspapers of mainland China, Taiwan, and southeast Asia.

Prerequisites: CHE 215 or permission of the instructor.

CHE 330 Readings in Chinese Communist Documents (4 credits)

Studies in documentary style of Chinese, selected mainly from writings of twentieth century political leaders of China.

Prerequisites: CHE 215 or permission of the instructor.

CHE 340 Twentieth Century Chinese Literature (4 credits)

Studies in the modern pai-hua literature, including short-stories, poems, essays, pamphlets.

Prerequisites: CHE 215 or permission of the Instructor.

CHE 410 Traditional Chinese Fiction and Drama (4 credits)

Studies in texts and criticism of classical drama from Yuan and other dynasties.

Prerequisites: CHE 310, or CHE 320, or permission of the Instructor.

CHE 421 Selected Classical Texts (4 credits)

Studies of texts in advanced literary Chinese.

Prerequisites: CHE 310 or CHE 312 or permission of the Instructor.

CHE 431 Classical Chinese Stories (4 credits)

Studies of selected stories from different classical Chinese sources.

Prerequisites: CHE 310 or CHE 312 or permission of the Instructor.

CHE 440 Chinese Poetry (4 credits)

Selections from either classical T'ang and Sung Dynasty poems or from the post-May-4th movement of poetry.

Prerequisites: CHE 310, or CHE 320, or permission of the Instructor.

CHE 490 Directed Readings and Research in Chinese (2, 4, or 8 credits)

For students with a high degree of competence in the language. Might be conducted either in literary Chinese or in modern languages.

Prerequisites: Major standing and permission of the Instructor.

French Language and Literature

FRH 007 La Puissance Treize (1 credit)

(French Acting Troupe)

Participation in French playlets performed both on and off campus. Work at all levels of competence.

Prerequisites: One semester of French.

**FRH 101 Reading French, (4 credits each)
First Semester**

FRH 102 Reading French, Second Semester

Reading comprehension of French. There will be a good deal of translation involved, and class attendance will be obligatory. Students may not receive credit for both FRH 101 and 114 or for both FRH 102 and 115. Not open to prospective majors.

FRH 114 First Semester French (5 credits each)

FRH 115 Second Semester French

Fundamentals of speaking, reading and writing French. Intended for students who have had no more than one year of secondary school preparation.

**FRH 201 Reading French, (4 credits each)
Third Semester**

FRH 202 Reading French, Fourth Semester

Continued development of reading skill; extensive readings in cultural, literary, and scientific texts. Additional reading materials chosen according to class interests.

Prerequisites: One year of college French or the equivalent. Not open to prospective majors. Students may not receive credit for both FRH 201 and 214, or for both FRH 202 and 215.

FRH 214 Third Semester French (5 credits each)

FRH 215 Fourth Semester French

Continued development of ability in spoken and written French; reading of literary and cultural texts.

Prerequisites: FRH 115 or the equivalent. Students may not receive credit for both FRH 201 and 214, or for both FRH 202 and 215.

FRH 216 Elementary French Conversation (2 credits)

To develop the students' confidence in his ability to express ideas comprehensibly in French. Geared to first and second year students.

Prerequisites: FRH 114 or equivalent.

**FRH 285-286 French Literature in (4 credits each)
Translation**

Man and society as seen in the works of representative authors from the Renaissance to the present. Conducted in English.

FRH 285 covers the period from the Renaissance to the nineteenth century.

FRH 286 deals with the nineteenth and twentieth centuries.

Open to French majors as elective only; does not carry credit toward departmental major.

Prerequisites: Sophomore standing or permission of the instructor.

**FRH 287 Black French Literature in (4 credits)
Translation**

Selections from black authors in French-speaking Africa and the West Indies. Study of the expressions of African culture from the continent (North Africa,

West Africa), as well as that literature developing in these different environments: Martinique, Haiti, Guadeloupe. Readings, lectures, discussions in English. Open to French majors as elective only; does not carry credit toward departmental major.

Prerequisites: Sophomore standing or permission of the instructor.

FRH 290 Directed Readings in French (2 or 4 credits)

A reading course for non-majors interested in research in a particular area. Approximately 50 hours of reading per credit; one conference weekly with the instructor. May be repeated for credit.

Prerequisites: FRH 202, or FRH 215, or permission of the Department.

FRH 311-312 French Composition and Conversation (4 credits each)

Devoted to increasing the student's command of the language and familiarizing him with idiomatic French. Intensive practice in oral and written composition as well as translation. Techniques of textual analysis and exposition are introduced. Conducted primarily in French.

Prerequisites: FRH 215 or an appropriate placement examination score. Especially qualified freshmen may be admitted.

FRH 313 French Phonetics (2 credits)

Intensive group and individualized practice in the sound system of French, with specific reference to interference from English. Some emphasis upon spelling-pronunciation associations; phonemic transcription; mechanics of sound production and perception. Both written and laboratory work required.

Prerequisites: FRH 215 or permission of the instructor.

FRH 316 Advanced French Conversation (2 credits)

To develop the students' confidence in his ability to express ideas comprehensibly in French. FRH 316 provides a transition between the carefully structured drills of intermediate courses and free manipulation of the language.

Prerequisites: FRH 215 or permission of the instructor.

FRH 350 French Theatre (4 credits)

The study of French plays from various periods, with the production of a play as a continuing class project. Lectures and discussions in French.

Prerequisite: FRH 215 or permission of the instructor.

FRH 351 French Civilization (4 credits)

A survey of French achievements in art, music, and other cultural fields. Emphasis will be placed on the various aspects of French culture in daily life. Conducted primarily in French.

Prerequisites: FRH 215 or an appropriate placement examination score.

FRH 365 Applied Linguistics of French (4 credits)

An introduction to modern linguistic insights with particular reference to teaching of the contemporary language; a brief survey of the development of modern French. Required for secondary teaching majors. Identical with LIN 365.

Prerequisites: FRH 312 or permission of the instructor.

FRH 371-372 Introduction to French Literature (4 credits each)

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

Prerequisites: FRH 215 or an appropriate placement examination score. Especially qualified freshmen may be admitted. Instructor should be consulted if courses are to be taken out of sequence.

FRH 404 French Films (4 credits)

This course introduces the student to French culture and thought via the cinematic medium. Lecture, film viewing and discussion. Whenever obtainable, the scenario will be read.

Prerequisite: Permission of the instructor.

FRH 411 Literature of the French Renaissance (4 credits)

Literary, intellectual, and linguistic trends as seen in selected works of principal authors of this period: Rabelais, Marot, Montaigne, Ronsard, and others. Conducted in French.

Prerequisite: FRH 372 or permission of the instructor.

FRH 421-422 Seventeenth Century (4 credits each)

FRH 421 deals with the development and character of French Classicism: Descartes, Pascal, the novels of D'Urfe' 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, Fénelon, Saint-Simon, Bayle, and Fontenelle. These courses are conducted in French.

Prerequisites: FRH 372 or permission of the instructor.

FRH 431-432 Eighteenth Century French Literature (4 credits each)

FRH 431 deals with the development of the philosophical spirit from Bayle to Voltaire; the interplay between France and England, the comedy of Marivaux and Beaumarchais and developments in the novel.

FRH 432 deals with political, social, and ethical thought of the Enlightenment; the Encyclopedists and later Philosophes. Primarily a study of Montesquieu, Diderot, and Rousseau, including the origins of Romanticism. These courses are conducted in French.

Prerequisites: FRH 372 or permission of the instructor.

FRH 441-442 Nineteenth Century French Literature (4 credits each)

FRH 441 is concerned with the flowering of Romanticism and the beginnings of Realism: novelists, dramatists, poets, and essayists, including Chateaubriand, Lamartine, Hugo, Vigny, Musset, Nerval, and Stendhal.

FRH 442 deals with the realistic novel, review of the Parnassian poets and the problem play, and the aesthetics of Naturalism; the relation of literature to the philosophical, political, and social ideas of the time. Primarily a study of Balzac, Flaubert, Zola, the Goncourts, and de Maupassant. These courses are conducted in French.

Prerequisites: FRH 372 or permission of the instructor.

FRH 451 Twentieth Century French Novel (4 credits)

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.

Prerequisites: FRH 372 or permission of the instructor.

FRH 452 Twentieth Century French Theatre (4 credits)

Drama since the Theatre Libre. Theatrical innovations and reforms of Copeau, Jouvet, Baty, Dullin, and others. Primarily a study of Claudel, Giraudoux, Anouilh, Montherlant, Camus, Sartre, and the recent experiments of Ionesco and Beckett. Conducted in French.

Prerequisites: FRH 372 or permission of the instructor.

**GRM 311-312 German Composition (4 credits each)
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.

Prerequisites: GRM 215 or an appropriate placement examination score. Especially qualified freshmen may be admitted.

GRM 351 German Civilization (4 credits)

A survey of civilization and culture in German speaking countries. The historical development will be traced through such topics as social structures, religion, philosophy, economics, and the arts. Conducted in English.

Prerequisites: Sophomore standing or permission of the instructor.

GRM 365 Applied Linguistics of German (4 credits)

An introduction to modern linguistic insights with particular reference to teaching of the contemporary language; a brief survey of the development of modern German. Required for secondary teaching majors. Offered in the Winter semester. Identical with LIN365.

Prerequisites: GRM 312 or permission of the instructor.

**GRM 369 Field Experiences in (2,4,6,8 credits)
German Teaching in the Lower Grades**

Provides supervised experiences in teaching German in the elementary school.

Prerequisites: GRM 115 or the equivalent.

**GRM 371, 372 Introduction to (4 credits each)
German Literature**

GRM 371: Textual analysis of the various literary genres; techniques of literary interpretation; the use of secondary sources. Literary readings chosen from the period 1890 to the present. Classwork in German. Offered in the Fall Semester.

GRM 372: A survey of representative literary works from the Middle Ages to 1770. Offered in the Winter Semester.

Prerequisites: GRM 215 or the equivalent.

GRM 407 German for the Classroom (4 credits)

Practice in the active use of German as needed for conducting classroom activities, with emphasis on pronunciation, grammar, vocabulary, and conversation. Incorporation of audio-visual media, film, tape and slides in teaching. Strongly recommended for elementary and secondary teaching majors. Open to liberal arts majors as elective credit only. Offered in the winter semester only.

Prerequisites: GRM 312 or equivalent

GRM 421 The Age of Goethe I (4 credits each)

GRM 422 The Age of Goethe II

This sequence deals with representative works of Goethe, Schiller and their contemporaries which exemplify the intellectual and artistic currents of this period. Particular attention given to Goethe's **Faust** and Schiller's **Wallenstein**.

Prerequisites: GRM 371 and 372.

GRM 431 German Romanticism and Realism (4 credits)

The literature of Romanticism and Poetic Realism, a study of the origin and development of these movements in the light of the political and philosophic background of the age, with special emphasis on the lyric poetry of Romanticism, the dramas of Kleist, Grillparzer, and Hebbel, and the Novelle of Poetic Realism. Conducted in German.

Prerequisites: GRM 371 and 372.

HIN 311-312 Hindi Composition and Conversation (4 credits each)

Devoted to increasing the student's command of the language and familiarizing him with idiomatic Hindi. Intensive practice in oral and written composition as well as translation. Techniques of textual analysis and exposition are introduced. Conducted primarily in Hindi.

Prerequisites: HIU 215 or permission of the instructor.

URD 311-312 Urdu Composition and Conversation (4 credits each)

Devoted to increasing the student's command of the language and familiarizing him with idiomatic Urdu. Intensive practice in oral and written composition as well as translation. Techniques of textual analysis and exposition are introduced. Conducted primarily in Urdu.

Prerequisites: Urdy 215 or permission of the instructor.

HIU 490 Independent Reading and Research (2, 4, or 8 credits)

Directed individual research and reading designed for advanced Hindi-Urdu majors. May be taken for one or more semesters.

Prerequisite: Permission of the department.

Italian Language

IT 114 First Semester Italian (5 credits each)

IT 115 Second Semester Italian

Fundamentals of speaking, reading and writing Italian. Intended for students who have had no more than one year of secondary school preparation.

IT 214 Third Semester Italian (5 credits each)

IT 215 Fourth Semester Italian

Continued development of ability in spoken and written German; reading of literary and cultural texts.

Prerequisites: IT 115 or the equivalent.

Portuguese Language

POR 114 First Semester Portuguese (5 credits each)

POR 115 Second Semester Portuguese

Fundamentals of speaking, reading and writing Portuguese. Intended for students who have had no more than one year of secondary school preparation. Brazilian Portuguese is emphasized.

POR 214 Third Semester Portuguese (5 credits)

Continued development of ability in spoken and written Portuguese; reading of literary and cultural texts. Brazilian Portuguese is emphasized.

Prerequisites: POR 115 or equivalent.

POR 390 Directed Readings in Portuguese (2 or 4 credits)

A reading course for students interested in research in a particular Portuguese-language area. Especially suited to Area Studies majors. Bibliography to be determined by students and instructor. Discussions in Portuguese or English. Paper optional. May be repeated for credit.

Prerequisites: POR 214 or permission of the department.

Russian Language and Literature**RUS 101 Reading Russian, First Semester (4 credits)****RUS 102 Reading Russian, Second Semester each)**

Reading comprehension of Russian. There will be a good deal of translation involved, and class attendance will be obligatory. Recommended for Area Studies. Students may not receive credit for both RUS 101 and 114 or for both RUS 102 and 115.

RUS 114 First Semester Russian (5 credits)**RUS 115 Second Semester Russian each)**

Fundamentals of speaking, reading and writing Russian. Intended for students who have had no more than one year of secondary school preparation.

RUS 201 Reading Russian, Third Semester (4 credits)**RUS 202 Reading Russian, Fourth Semester each)**

Continued development of reading skill; extensive readings in cultural, literary, and scientific texts. Additional reading materials chosen according to class interests.

Prerequisites: One year of college Russian or the equivalent. Not open to prospective majors. Students may not receive credit for both RUS 201 and 214, or for both RUS 202 and 215.

RUS 214 Third Semester Russian (5 credits each)**RUS 215 Fourth Semester Russian**

Continued development of ability in spoken and written Russian; reading of literary and cultural texts.

Prerequisites: RUS 115 or the equivalent. Students may not receive credit for both RUS 201 and 214, or for both RUS 202 and 215.

RUS 285 Masterpieces of Nineteenth Century Russian Literature in English Translation (4 credits)

A study of the writings of Pushkin, Lermontov, Gogol, Turgenev, Dostoevsky and Tolstoy as a reflection of cultural developments in Russia in the nineteenth century. Lectures and readings in English. Open to Russian majors as elective only; does not carry credit toward departmental major.

Prerequisites: Sophomore standing or permission of the instructor.

RUS 286 Masterpieces of Modern Russian Literature in English Translation (4 credits)

A study of the major literary movements in Russian in the post-revolutionary period from the Symbolists to Solzhenitsyn. Lectures and readings in English. Open to Russian majors as elective only; does not carry credit toward departmental major.

Prerequisites: Sophomore standing or permission of the instructor.

RUS 287 Tolstoy in English Translation (2 credits)

An examination of the major novels and shorter works, including their religious, philosophical and psychological significance. Lectures and readings in English. Open to Russian majors as elective only; does not carry credit toward departmental major.

Prerequisites: Sophomore standing or permission of the instructor.

RUS 288 Dostoevsky in English Translation (2 credits)

An examination of the major novels, short novels and journalistic writings with regard to their literary, philosophical, religious and psychological content.

Lectures and readings in English. Open to Russian majors as elective only; does not carry credit toward departmental major.

Prerequisites: Sophomore standing or permission of the instructor.

RUS 290 Directed Readings in Russian (2 or 4 credits)

A reading course for non-majors interested in research in a particular area. Approximately 50 hours of reading per credit; one conference weekly with the instructor. May be repeated for credit.

Prerequisites: RUS 215 or permission of the Department.

RUS 311-312 Russian Composition and Conversation (4 credits each)

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 365 Applied Linguistics of Russian (4 credits)

An introduction to modern linguistic insights with particular reference to teaching of the contemporary language; a brief survey of the development of modern Russian. Required for secondary teaching majors. Offered in the Winter Semester. Identical with LIN 365.

Prerequisites: RUS 312 or permission of the instructor.

RUS 371, 372 Introduction to Russian Literature (4 credits each)

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 400 Special Topics in Language (4 credits)

Special problems or topics selected by the instructor. May be repeated for credit.

Prerequisites: RUS 372, or RUS 462, or permission of the Department.

RUS 426 Russian Poetry of the First Half of the Nineteenth Century (4 credits)

Major Russian poets from the first part of the nineteenth century: Zhukovsky, Batyushkov, Delvig, Baratynsky, and Yazykov, with emphasis on Pushkin. Conducted in Russian.

Prerequisite: RUS 372.

RUS 427 Russian Poetry of the Second Half of the Nineteenth Century (4 credits)

Poetry of the second part of the nineteenth century: Tyutchev, Fet, A. Tolstoy, and Nekrasov, with special emphasis on Lermontov and his influence. Conducted in Russian.

Prerequisite: RUS 372.

RUS 434 Russian Realism (4 credits)

Russian realistic novel from 1840 to 1880. Selections from the major novelists. Conducted in Russian.

Prerequisite: RUS 372.

RUS 435 Chekhov and His Time (4 credits)

Devoted mainly to Chekhov's prose but includes other prose writers of the time such as Garshin, Korolenko, Gorky. Conducted in Russian.

Prerequisite: RUS 372.

RUS 441 Tolstoy (4 credits)

Study of Tolstoy's literary and moral development as reflected in his major works. Conducted in Russian.
 Prerequisite: RUS 372.

RUS 442 Dostoevsky (4 credits)

Study of Dostoevsky's evolution as a writer and thinker. Conducted in Russian.
 Prerequisite: RUS 372.

RUS 451 Modern Russian Prose (4 credits)

Selected prose works from the beginning of the twentieth century. Included are works of pre-revolutionary, Soviet, and emigre' authors. Conducted in Russian.
 Prerequisite: RUS 372.

RUS 461-462 Advanced Composition and Conversation (4 credits each)

Intensive oral work designed to perfect conversational ability with emphasis on phonetics and diction. Extensive written work along with analysis of style in selected passages from Russian authors. RUS 461 is recommended for elementary teaching majors and is required for secondary teaching majors. RUS 461-462 is required for Russian majors in liberal arts. Offered in the Fall and Winter Semesters.
 Prerequisite: RUS 312.

RUS 480 Seminar in Russian Literature (4 credits)

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

RUS 490 Independent Reading and Research (2, 4, or 8 credits)

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

Spanish Language and Literature

SPN 101 Reading Spanish, First Semester (4 credits)

SPN 102 Reading Spanish, Second Semester each

Reading comprehension of Spanish. There will be a good deal of translation involved, and class attendance will be obligatory. Students may not receive credit for both SPN 101 and 114 or for both SPN 102 and 115. Not open to prospective majors.

SPN 114 First Semester Spanish (5 credits each)

SPN 115 Second Semester Spanish

Fundamentals of speaking, reading and writing Spanish. Intended for students who have had no more than one year of secondary school preparation.

SPN 201 Reading Spanish, Third Semester (4 credits)

SPN 202 Reading Spanish, Fourth Semester each

Continued development of reading skill; extensive readings in cultural, literary, and scientific texts. Additional reading materials chosen according to class interests.

Prerequisites: One year of college Spanish or the equivalent. Not open to prospective majors. Students may not receive credit for both SPN 201 and 214, or for both SPN 202 and 215.

SPN 214 Third Semester Spanish (5 credits each)

SPN 215 Fourth Semester Spanish

Continued development of ability in spoken and written Spanish; reading of literary and cultural texts.

Prerequisites: SPN 115 or the equivalent. Students may not receive credit for both SPN 201 and 214, or for both SPN 202 and 215.

SPN 285, 286 Spanish and Spanish (4 credits each)

American Literature in Translation

SPN 285 will be a survey of Spanish literature from El Cid through the twentieth century.

SPN 286 will include major works from Latin America. Lectures and readings in English. Either course may be taken independently of the other. Open to Spanish majors as elective only; does not carry credit toward departmental major.

Prerequisites: Sophomore standing or permission of the instructor.

SPN 290 Directed Readings in Spanish (2 or 4 credits)

A reading course for non-majors. Approximately 50 hours of reading per credit; one conference weekly with instructor. May be repeated for credit.

Prerequisites: Sophomore standing or permission of the instructor.

SPN 300 Composition and Conversation (4 credits)

For overseas study program only. At third or fourth year level depending on student preparation.

Prerequisites: SPN 215 or permission of the Instructor.

**SPN 311-312 Spanish Composition (4 credits each)
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 grammar and translation. Techniques of textual analysis and exposition are introduced. Conducted primarily in Spanish.

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

SPN 350 Spanish Theatre (2 or 4 credits)

The study and presentation of Spanish plays with intensive drill in pronunciation and intonation. The theatre as a literary genre and as a living experience. May be repeated for credit. However, only 4 credits will count toward satisfaction of major requirements.

Prerequisite: Permission of the Instructor.

SPN 351 Spanish Civilization (4 credits)

An historical approach to Spanish culture and civilization, with particular emphasis given to geography, social structure, philosophical thought, music, art, and architecture. Although it does not count toward the major, this course does satisfy the departmental history requirement.

Prerequisites: Sophomore standing or permission of the instructor.

SPN 365 Applied Linguistics of Spanish (4 credits)

An introduction to modern linguistic insights with particular reference to teaching of the contemporary language; a brief survey of the development of modern Spanish. Required for secondary teaching majors. May not be taken to fulfill requirements for the liberal arts major, except by majors with a concentration in linguistics. Identical with LIN 365.

Prerequisites: Junior standing or permission of the instructor.

**SPN 371, 372 Introduction to Spanish (4 credits each)
Literature**

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

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

**SPN 373 Introduction to Spanish (4 credits)
American Literature**

A general survey of Spanish American literature complemented with the reading and study of the masterpieces.

Prerequisites: SPN 215

**SPN 401 Literature of the Spanish Middle (4 credits)
Ages and Renaissance**

Masterworks of the period.

Prerequisite: SPN 372.

SPN 412 The Quixote (4 credits)

Detailed study of Cervantes' masterwork.

Prerequisite: SPN 372

SPN 424 The Golden Age (4 credits)

Masterpieces of Spanish literature of the period.

Prerequisite: SPN 372.

**SPN 433 Spanish Literature of the (4 credits)
Eighteenth and Nineteenth Centuries**

Masterworks of the period in peninsular literature.

Prerequisite: SPN 372.

**SPN 461 Advanced Composition and (4 credits)
Conversation**

Intensive oral work designed to perfect conversational ability, with emphasis on phonetics and diction. Extensive written work to increase the student's skill in original composition. Analysis of style in selected passages from Spanish authors. Strongly recommended for those planning to teach at the elementary level. Required for secondary teaching majors.

Prerequisite: SPN 312.

SPN 462 Spanish American Literature I (4 credits)

Masterworks of Spanish American literature through the nineteenth century.

Prerequisite: SPN 372.

SPN 463 Spanish American Literature II (4 credits)

Masterworks of twentieth century Spanish American literature.

Prerequisite: SPN 372.

**SPN 472 Twentieth Century Spanish (4 credits)
Literature**

Masterworks of the period in peninsular literature.

Prerequisite: SPN 372.

SPN 476 Lyric Poetry (4 credits)

Masterworks of Spanish Lyric poetry. A detailed study of one poet will occupy the latter part of the course.

Prerequisite: SPN 372.

SPN 480 Seminar in Spanish Literature (4 credits)
Study of individual authors, selected themes, or critical problems.

SPN 490 Independent Reading and Research (2 or 4 credits)

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

SPN 499 Honors Course in Spanish (4 credits)
An introduction to scholarly techniques as applied to a work, an author, or a genre. Admission by permission of the Department.

Swahili Language

SWA 114-115 First Year Swahili (5 credits each)

An introduction to the basic structure of Swahili with an emphasis on both conversation and reading.

SWA 214-215 Second Year Swahili (5 credits each)

A continuation of SWA 114-115 with increasing emphasis on reading and composition.

Prerequisites: SWA 114-115 or permission of the Instructor.

SWA 270 Readings in Swahili (4 or 8 credits)

Study of selected texts pertaining to different aspects of Swahili cultural life. May be conducted as a tutorial and may be repeated for credit.

Prerequisites: SWA 215 or permission of the Instructor.

Modern Language

ML 191-192 Tutorial in Foreign Language (4 credits each)

Instruction in the elements of a spoken or written foreign language such as Arabic, Bengali, Czech, Japanese, Sanskrit, Hausa, etc. for which no regular course sequence exists here.

May be repeated for credit in a different language each time.

ML 291-292 Intermediate Tutorial in Foreign Language (4 credits each)

Intermediate work in a language and literature not normally taught at Oakland University or available only at lower levels.

Prerequisites: Permission of the instructor.

ML 391-392 Advanced Tutorial in Foreign Language (4 credits each)

Advanced work in a language and literature not normally taught at Oakland University or available only at lower levels.

Prerequisites: Permission of the instructor.

ML 497 Apprentice College Teaching (2 or 4 credits)

Supervised participation in the teaching of an undergraduate course in language or literature, together with discussion of teaching objectives and methods. Open to well-qualified upperclassmen capable of assuming limited classroom responsibility who have obtained the consent of a faculty member in this Department. Does not satisfy major requirements in modern languages nor

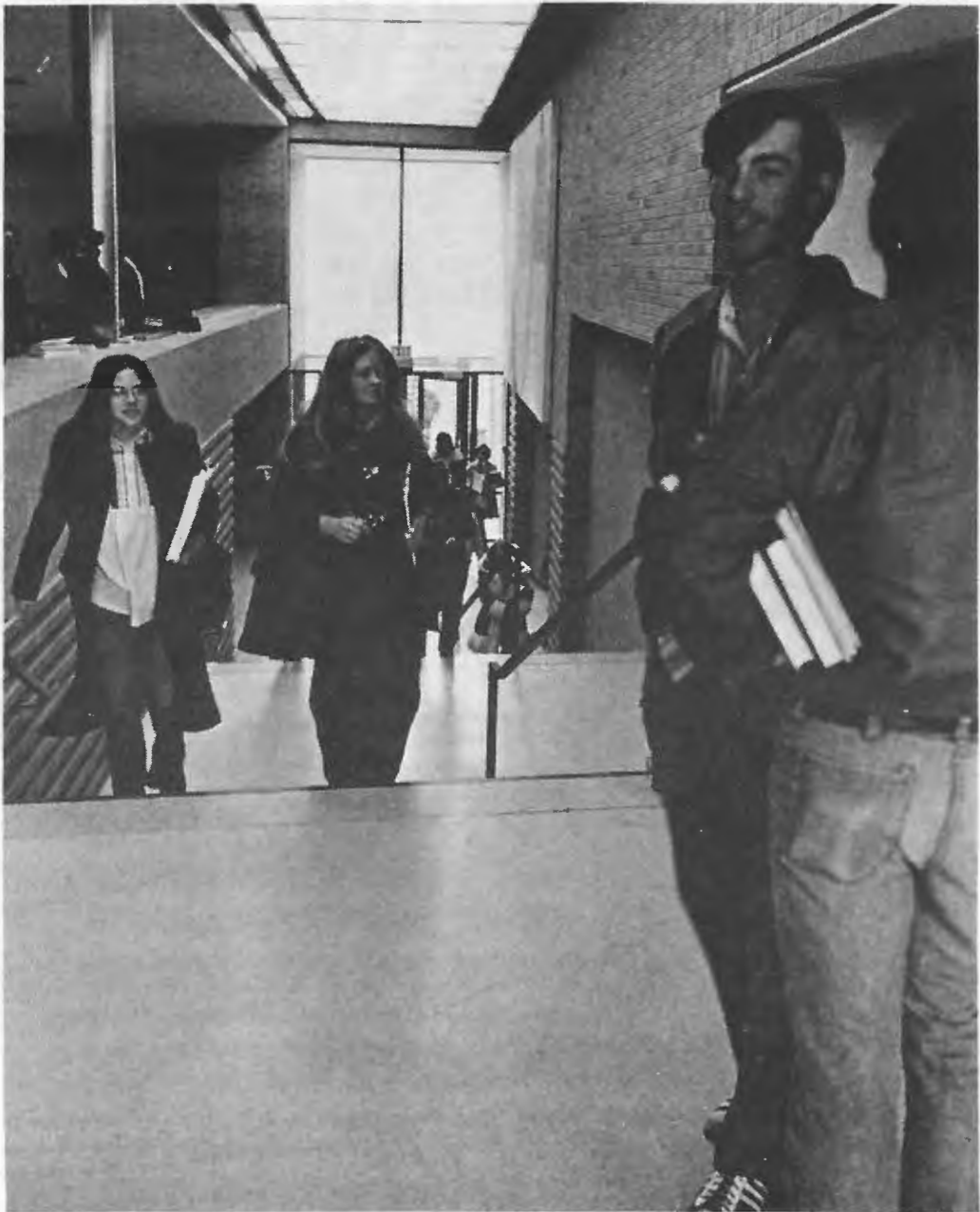
professional requirements in education. Offered in the Fall Semester.
Prerequisite: Permission of the Department.

MLT 285 Topics in World Literature: . . . (4 credits)

A theme of contemporary interest as it has been treated in different literary forms throughout the world and throughout the ages.
Prerequisites: None

MLT 290 Foreign Language Readings (2 or 4 credits)
in English Translation

A tutorial for students desiring to read materials by foreign writers in the student's own field of interest. Topic and bibliography to be determined by the student and his instructor. Materials and discussions in English. May be repeated for credit.
Prerequisite: Permission of the Department.





DEPARTMENT OF MUSIC

ACTING CHAIRMAN: RAYNOLD ALLVIN

ASSOCIATE PROFESSORS: Raynold Allvin; David Daniels; David DiChiera (on leave); Robert Facko

ASSISTANT PROFESSORS: Marvin Holladay; Lyle Nordstrom; Clifford Pfeil

LECTURER: Flavio Varani

SPECIAL INSTRUCTORS: Richard Conrad; John Dovaras; Alice Engram

APPLIED MUSIC INSTRUCTORS: Paul Allen (trumpet); Will Austin (jazz improvisation/bass); Donald Baker (oboe); Marcus Belgrave (jazz trumpet); Joan Berndt (strings/woodwinds); Douglas Cornelsen (clarinet); Mario DiFiore (cello); Joe Fava (classical guitar); LeRoy Fenstermacher (viola); Norman Fickett (percussion); Derek Francis (violin); Robert Gladstone (string bass); Ali Muhammad Jackson (jazz improvisation/bass); Wesley Jacobs (lower brass); Jack Kripl (saxophone); Lyell Lindsey (bassoon); Kent McDonald (piano/organ); Ervin Monroe (flute); Bert Myrick (drums); Terry Pollard (jazz/piano); Phil Ranelin (jazz trombone); Samuel Sanders (jazz saxophone); Raymond Turner (trombone); Barbara Windham (voice)

The Department of Music is committed to the continuous evolution and expansion of the entire music program and to the active participation of students in this evolution. The music department's New Curriculum — designed by faculty and students together — is unique in many respects. For this reason, it is absolutely necessary to read the MUSIC HANDBOOK (available from the music office, room 312 VH) and to consult with a departmental advisor before beginning a music degree program. Note that all new and transfer students are expected to audition during the first week of classes in order to qualify for their chosen performing medium.

THE CERTIFICATE SYSTEM

The Department of Music uses a certificate system designed to enable majors to devise their own means of study, and to a

considerable extent, their own course of study. Under this system, levels of achievement are required, but, with a few exceptions, courses and course sequences in the Department are not. Students may work toward the levels of achievement in a variety of ways: by taking advantage of the courses offered, or by independent study, or by combining course study with independent study.

To help students plan their course of study and determine their means of study, the music department publishes samples of the certificate examinations. It is the eventual passing of these certificate examinations, rather than the following of a particular sequence of departmental courses, that is required for any music major. The examinations also serve diagnostically: if students do not achieve the required level of proficiency, the results identify the areas they need to study before trying again.

For general education requirements for graduation, see p. 53.

Programs of Study

There are three degree programs now available for music majors:

1. **Bachelor of Arts in Music:** This degree involves 48 credits of music, and the successful completion of five certificates: Basic Materials of Music, Theory, Ear Training, Music History and Literature, and Performance.

2. **Bachelor of Science in Music:** A more intensive pre-professional training. 72 credits of music, and the successful completion of nine certificates: the five required for the B.A. degree plus Performance Minor, Keyboard Proficiency, and two elective certificates of the student's choice, such as Advanced Theory, Composition, Advanced Music History, Instrumental Studies, Choral Studies, Church Music, Pedagogy, Jazz, and Performance Honors. With the approval of the Department, students may design highly individualized certificates to suit their own personal interests and goals.

3. **Bachelor of Science in Music Education:** For the prospective public school teacher. This program involves elementary and secondary teaching certification by the State of Michigan. 60 credits of music (plus practice teaching and the education courses and teaching minor required by the State) and the successful completion of nine certificates: the five required for the B.A. degree plus Performance Minor, Keyboard Proficiency, Music Education, and either Instrumental Studies or Choral Studies.

All the above mentioned certificates are described in detail in the Music Handbook.

MUS 104 Wind Ensemble (1 or 2 credits)

An opportunity for all performers of wind instruments in the University to explore the literature written for wind ensembles. The ensembles will call for a variety of instrumentation. Membership by audition.

MUS 105 Opera Workshop (1, 2 or 3 credits)

Study and experience in various forms of musical theatre. Students will be apprenticed to the Michigan Opera Theatre and will participate in some aspect of its professional productions.

Prerequisite: Permission of the Department.

MUS 106 University Orchestra (1 or 2 credits)

Orchestral performance of repertoire from the eighteenth, nineteenth and twentieth centuries. Several concerts per year, on and off campus. Accompaniments for solo concertos and various University vocal groups. Membership by audition.

MUS 107 Afram Lab Band (1 or 2 credits)

A study of traditional and contemporary literature for large jazz ensembles within the Afro-American cultural context. Both conceptualization of the material and improvisational techniques will be explored and defined.

MUS 108 University Community Chorus (1 or 2 credits)

Open to all student and community singers. Offered in evenings only.

MUS 109 Opera Chorus (1 or 2 credits)

An ensemble which performs in conjunction with the Michigan Opera Theatre. Permission of instructor required.

MUS 112 Jazz Improvisation Workshop (2 credits)

A laboratory in performance practice designed to increase improvisational skills indigenous to jazz performance and to systematically identify and use stylistic characteristics of various sub-categories of jazz.

MUS 370 Accompanying (1 or 2 credits)

Designed to help the pianist acquire a knowledge of the basic skills required in the ensemble situation. Representative vocal and instrumental compositions are studied, and emphasis is placed on rehearsal techniques and performance.

MUS 420 Performance Seminar (2 or 4 credits)

The performance of specific works as it is affected by theoretical analysis and stylistic-historical considerations.

Prerequisite: Completion of the theory certificate; MUS 321 and 322 recommended.

Applied Music

MUS 160 Voice (2 credits)

MUS 161 Piano (2 credits)

MUS 162 Organ (2 credits)

MUS 163 Harpsichord (2 credits)

MUS 164	Violin	(2 credits)
MUS 165	Viola	(2 credits)
MUS 166	Violoncello	(2 credits)
MUS 167	String Bass	(2 credits)
MUS 168	Flute	(2 credits)
MUS 169	Oboe	(2 credits)
MUS 170	Clarinet	(2 credits)
MUS 171	Bassoon	(2 credits)
MUS 172	French Horn	(2 credits)
MUS 173	Trumpet	(2 credits)
MUS 174	Trombone	(2 credits)
MUS 175	Tuba	(2 credits)
MUS 176	Timpani	(2 credits)
MUS 177	Percussion	(2 credits)
MUS 178	Harp	(2 credits)
MUS 179	Guitar, Classical	(2 credits)
MUS 180	Renaissance Winds (Krummhorns, Recorders, etc.)	(2 credits)
MUS 181	Viola da Gamba	(2 credits)
MUS 182	Lute	(2 credits)
MUS 183	Recorder	(2 credits)
MUS 184	Saxophone	(2 credits)

MUS 189 Performance Honors (2 credits)

A program of intensive study on the student's major instrument. May only be taken concurrently with one of the above applied music courses (MUS 160 through MUS 184).

Prerequisite: Permission of the Department.

MUS 190 Rock and Jazz Performance (3 credits)

Study of instruments and/or voices as used in rock ensemble performances, including improvisation, arranging and composition for such ensembles, organizing and directing, rehearsal techniques, and aesthetic expression in the rock media.

Prerequisite: Permission of the instructor.

MUS 360 Class Voice (2 credits)

Elementary aspects of singing, including diction, breath control, projection, and repertoire.

MUS 365 Class Recorder (2 credits)

MUS 366 Class Viola da Gamba (2 credits)

MUS 367 Class Lute (2 credits)

MUS 368 Class Renaissance Winds (2 credits)

MUS 371-372-373-374 Keyboard Technique (2 credits each)

Designed to develop the basic keyboard facility essential to the equipment of any musician and to acquaint him with keyboard literature. Music majors planning to register for this course should indicate such intention to the Department of Music at the time of their first registration in the University. Normally offered each semester.

Prerequisite: Permission of the instructor.

Theory and Composition

MUS 111 Beginning Musicianship (4 credits)

An introduction to the techniques of reading and writing music, notation, pitch, and rhythmic organization, elementary sight singing, dictation, and keyboard familiarity. An elective course for non-music majors.

MUS 120 Ear Training (2 credits)

Practice in sight-singing, aural analysis, and melodic, rhythmic, and harmonic dictation. Classroom drill and programmed lesson material on recorded tapes. Not open to students enrolled in MUS 210.

MUS 210 Introduction to the Materials of Music (5 credits)

The development of perceptive listening techniques and an awareness of musical styles. Solution of musical problems in written work and laboratory sessions. Beginning ear training and the rudiments of tonal harmony.

MUS 293 Composition (4 credits)

Private lessons in composition and composition laboratory: Studies, exercises, and projects concerning creativity and craft in the composing of music. For freshmen and sophomores. May be repeated for credit.
Prerequisite: Permission of the instructor.

MUS 310 Harmony (4 credits)

The harmonic practice of the eighteenth and early nineteenth centuries. Composition and analysis in this style.
Prerequisites: MUS 210 or permission of the instructor.

MUS 314 Form in Tonal Music (4 credits)

Tonality as a force in musical structure; the forms of the seventeenth through nineteenth centuries. Analysis of many works and composition using tonal idioms.
Prerequisites: MUS 210 or permission of the instructor.

MUS 315 Tonal Counterpoint (4 credits)

The contrapuntal style of the eighteenth century; composition and analysis.
Prerequisites: MUS 210 or permission of the instructor.

MUS 410 Advanced Harmony (4 credits)

Harmonic practice of the late nineteenth and early twentieth centuries; composition and analysis in this style.
Prerequisites: Either MUS 310, 314, or 315.

MUS 411 Orchestration (4 credits)

A study of the orchestral instruments and their use in various combinations, including full orchestra and band.
Correlative courses: MUS 380, 381, 382, 404, 412.
Prerequisites: Either MUS 310, 314, or 315.

MUS 412 Twentieth Century Techniques (4 credits)

Compositional practices in the twentieth century; composition and analysis.
Prerequisites: Either MUS 310, 314, or 315.

MUS 415 Modal Counterpoint (4 credits)

The contrapuntal style of the sixteenth century. Analysis and composition in this style. Offered in alternate years.
Prerequisites: Either MUS 310, 314, or 315.

MUS 493 Advanced Theory/Composition (4 credits)

Private lessons in composition and composition laboratory: Studies, exercises, and projects concerning creativity and craft in the composing of music. For juniors and seniors. May be repeated for credit.
Prerequisite: MUS 412 or permission of the instructor.

MUS 110 World Music Survey (4 credits)

An introduction to selected music cultures aimed at acquainting the student with a variety of musical functions and styles at various places and times. Emphasis will be on demonstrations by means of live performances by visiting lecturers and guest artists.
Prerequisites: None

**MUS 321 Music History and Literature (4 credits)
to 1750**

History and literature of music through the Baroque period. Designed primarily for music majors. Offered each fall semester.
Prerequisites: MUS 210 or permission of the instructor.

MUS 322 Music History and Literature (4 credits)
Since 1750

History and literature of music from 1750 to the present. Offered each winter semester. Designed primarily for music majors.
Prerequisites: MUS 2xp or permission of the instructor.

MUS 331 Opera and Music Drama (4 credits)

A study of music drama from the lyric drama of the ancient Greeks to the present. Suggested as an elective for non-music majors.
Prerequisites: MUS 210 or permission of the Instructor.

MUS 332 Symphonic Music (4 credits)

A study of symphonic music from the pre-classic compositions of C.P.E. Bach to the present. Suggested as an elective for non-music majors.
Prerequisites: MUS 210 or permission of instructor.

MUS 333 Choral Music (4 credits)

A study of choral music from the beginnings of choral polyphony in the early fifteenth century to the present. Suggested as an elective for non-music majors as well as for music majors.
Prerequisites: MUS 210 or permission of the instructor.

MUS 342 Music in the Baroque Era (4 credits)

A study of significant forms, composers, and nationalistic trends in the Baroque era. Suggested as an elective for non-music majors.
Prerequisites: MUS 210 or permission of the instructor.

MUS 345 Twentieth Century Music (4 credits)

A study of significant styles and composers from Debussy to the present. Suggested as an elective for non-music majors.
Prerequisites: MUS 210 or permission of the instructor.

MUS 346 The Music of Black Americans (4 credits)

Contributions of the black race to the development of music in the United States. Investigation of the elements of African musical style in Afro-American music. What is black musical idiom? Folksong — secular and sacred. Formal composition. Popular forms of music. Recommended as an elective for non-music majors as well as music majors.

MUS 430 Music of the Religious Service (4 credits)

The philosophical and psychological bases of music in religious services. Service planning and arranging, traditional and experimental, using media of sound production and multiple sensory methods. The effect of music on sacred texts.

MUS 490 Introduction to Music (4 credits)
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.
Prerequisites: MUS 321, 322, and a 400-level theory course.

MUS 491 Directed Research in (4 credits)
Music History

A program of directed individual reading and research designed for advanced music history majors.
Prerequisites: MUS 321, 322, and a 400-level theory course.

Music Education**MUS 149 Music as an Art and as an Elementary School Subject (5 credits)**

An introduction to the techniques of listening to music and of teaching music in the elementary school. Begins at a level for the student lacking previous musical experience. Substitutes for UC 049 for general elementary education majors.

MUS 230 Studies in Choral Music (3 credits)

Seminar, independent study, and performance of choral music including vocal production techniques, performance practices, and historical foundations. Usually offered in summer sessions only.

MUS 231 Studies in Orchestral Music (3 credits)

Seminars, independent study, and performance of orchestral music, including study of performance practices, theory, history, and chamber music of various periods. Usually offered in summer session only.

MUS 232 Studies in Piano Performance and Literature (3 credits)

Master class in performance of selected piano works including historical, performance practices, and technical considerations. Usually offered in summer session only.

MUS 245 Field Studies in Music Teaching and Learning (4 credits)

The pedagogical foundations of teaching and learning music via lectures, discussions, simulations, games, and observations. Application of pedagogical theory to develop learning/teaching strategies appropriate to group and individual music instruction. The student will explore the instructional processes at the department of music's music education laboratory school.

MUS 380 Instrumental Methods (Strings) (2 credits)

Designed to provide the teacher with basic facilities and pedagogical techniques for the string family.

MUS 381 Instrumental Methods (Woodwinds) (2 credits)

Designed to provide the teacher with basic facilities and pedagogical techniques for the woodwind family.

MUS 382 Instrumental Methods (Brass and Percussion) (2 credits)

Designed to provide the teacher with basic facilities and pedagogical techniques for the brasses and percussion.

MUS 395 Conducting (4 credits)

The basic techniques of conducting, including both instrumental and choral. Participants will elect to emphasize either instrumental or choral technique and will be assigned at least one hour per week as an assistant in University performing groups or public school ensembles.

Prerequisites: MUS 210 and a 300-level theory course, or permission of instructor.

MUS 401 Teaching Music in Elementary Schools (2 credits)

The organization and content of the general vocal music class in the kindergarten and the first six grades of elementary school. The development of mu-

sicality in the child through singing, playing instruments, listening to music, and participating in rhythmic activities. Special emphasis on teaching music reading and ear training to young children.

Prerequisites: MUS 210 and a 300-level theory course, or permission of the instructor.

MUS 402 Teaching Music in Secondary Schools (2 credits)

The content and organization of the complete secondary school curriculum and the role music assumes in it, including place and function of performing groups, general music, music appreciation, music theory, and musical production. Coordination of the music program with other subject areas such as English, social studies, drama. Selection of appropriate repertoire and development of the school music library.

Prerequisites: MUS 210 and a 300-level theory course, or permission of the instructor.

MUS 403 Conducting Choral Music in Secondary Schools (2 credits)

The organization and conducting of choral music in junior and senior high schools. The development of the adolescent and young adult voice. Problems of selection of repertoire. The selected choir, the mixed chorus, glee clubs, madrigal groups, and other small vocal ensembles. Historical style in choral singing, choral festivals and contests.

Prerequisites: MUS 210 and a 300-level theory course, or permission of the instructor.

MUS 404 Conducting Instrumental Music in Secondary Schools (2 credits)

The organization and conducting of instrumental music in junior and senior high schools. Repertoire, materials, and techniques of secondary school orchestras, bands, stage bands, and ensembles. Pedagogical principles appropriate to individual or group instruction.

Prerequisites: MUS 210 and a 300-level theory course, or permission of the instructor.

MUS 441-442 Music Pedagogy (4 credits each)

Principles of music instruction for the studio teacher. The first semester will be devoted to a survey of the field and to observation. The second semester will be devoted to supervised teaching.

MUS 450 Techniques and Materials of Jazz and Rock Instruction (3 credits)

Repertory and pedagogy appropriate to rock instrumental and vocal ensemble instruction in the public schools. Extraction of aesthetic elements from rock media for use in music appreciation, music theory, and arts and humanities offerings at the secondary school level. Usually offered in the summer only.

Prerequisite: Permission of the instructor.

MUS 480 Advanced Studies in Choral(1, 2, or 3 credits) Conducting and Literature

A program of independent and seminar work in advanced choral conducting. Emphasis is placed on interpretation of choral literature through research. Opportunities are provided for conducting experience in choral lab groups. Usually offered in summer session only.

Prerequisites: Choral conducting experience and one class in music history, or permission of instructor.

MUS 481 Advanced Studies in (1, 2, or 3 credits)
Orchestral Conducting & Literature

A program of independent and seminar work in advanced orchestral conducting. Emphasis is placed on interpretation of orchestral literature through research. Opportunities are provided for conducting experience in a laboratory orchestra. Usually offered in summer session only.

Prerequisites: Conducting experience, music history, or permission of instructor.

MUS 494 Directed Research in (2 or 4 credits)
Music Education

A program of directed individual reading and research in technology of, innovation in, and psychology of music instruction.

Prerequisites: Two courses from the series MUS 401, MUS 402, MUS 403, and MUS 404, or permission of the instructor.

MUS 496 Innovations in Music Instruction (3 credits)

Innovative patterns of music instruction. Materials, methods and curricula appropriate to changing demands made on the public school music teachers.

Prerequisite: Permission of the instructor.

MUS 550 Repertory and Pedagogy of (2 credits)
Jazz and Rock

Rock instrumental, vocal and ensemble instructional methods including arranging and composing for school rock groups, organization and administration of rock ensembles, and development of courses of study based on rock for secondary music appreciation, music theory, and humanities classes. The course is designed to develop instructional skills in teaching and using rock with secondary school students. Usually offered in the summer sessions only.

MUS 565 Advanced Study in (2 or 3 credits)
Performance Practices

The study of music literature of specific periods. The study of established performance characteristics unique to a musical period and/or a specific instrument. Detailed analysis of melodic material, harmonic implications, formal structure, rhythmic drive and textural balance will be used as the basis for establishing foundations of appropriate interpretation. Usually offered in the summer session only.

MUS 580 Advanced Choral (1, 2, or 3 credits)
Interpretation and Conducting Techniques

Study of the techniques and problems of correctly interpreting and conducting choral literature through style analysis, performance practices, choral tradition and vocal production. Usually offered in the summer session only.

MUS 581 Advanced Instrumental (1, 2, or 3 credits)
**Interpretation and
Conducting Techniques**

Study of the techniques and problems of correctly interpreting and conducting major orchestral works through style analysis, performance practices, and various instrumentations, including works for a wide range of ensemble combinations. Usually offered in the summer session only.

MUS 595 Innovations in Music Instruction (2 or 3 credits)

Innovative patterns of music instruction. Materials, methods, and curricula appropriate to changing philosophies of music education and current research on learning and teaching. Emphasis on structuring learning encounters. Usually offered in the summer session only.

Independent Study

MUS 295 Independent Study (2,4,6,8,10,12 credits)

Normally for freshmen and sophomores.
Prerequisite: Permission of the Department.

MUS 495 Independent Study (2,4,6,8,10,12 credits)

Normally for juniors and seniors.
Prerequisite: Permission of the Department.

MUS 497 Apprentice College Teaching (2 credits)

Supervises participation in the teaching of an under-graduate course in music, together with discussion of teaching methods and objectives.
Prerequisite: Permission of Department.

STUDENT LIFE

Music

Oakland students may participate in the following music ensembles: Collegium Musicum, Oakland University Singers, University Chorus, Wind Ensemble, Afram Lab Band, University Orchestra, Opera Workshop, Opera Chorus, and University Community Chorus. These ensembles may be taken for academic credit, or as an extra-curricular activity. For further information, see Department of Music course offerings.

DEPARTMENT OF PHILOSOPHY

CHAIRMAN: RICHARD J. BURKE

PROFESSOR: Richard J. Burke

ASSOCIATE PROFESSORS: Richard W. Brooks;
Alfred Lessing

ASSISTANT PROFESSOR: Robert J. J. Wargo

INSTRUCTORS: Jack Cumbee; Julian Weitzenfeld

ADJUNCT FACULTY: Prof. Charles E. Morton

Philosophy is one of the oldest, often one of the least understood of the liberal arts. The philosopher is interested in all aspects of human life, searching for the greatest possible clarity concerning the most fundamental questions. There is no one kind of philosophy; there are many kinds, each with its own value. Philosophy has always served two functions: the first is speculative, the attempt to formulate illuminating generalizations about science, art, religion, nature, society, and any other important topic; the second is critical, the unsparing examination of its own generalizations and those of others to uncover unfounded assumptions, faulty thinking, hidden implications, and inconsistencies. The study of philosophy is designed to encourage a spirit of curiosity, a sensitivity toward the uses of words, a sense of objective assessment toward oneself as well as others. Competence in philosophy is solid training for advanced study in such fields as law, government, and public administration, as well as the ministry and teaching.

The Department of Philosophy offers programs of study leading to the degree of Bachelor of Arts with liberal arts major in philosophy, modified major, major in philosophy with concentration in area studies, and major in philosophy with concentration in linguistics. Majors in these programs may complete their general education requirement through courses chosen from departmental offerings, from University courses, or in the programs of Allport College or New-Charter College.

The Department of Philosophy accepts all options open to students for satisfying the College symbolic systems requirement.

Requirements for the Liberal Arts Major in Philosophy

Nine departmental courses (36 credits) are required, including PHL 101. The Department also offers a modified major in philosophy, modelled on the concentrations described below but tailored to the interests of the individual student. Such a modified major must include at least 24 credits in philosophy and will normally supplement these with at least 20 credits from one or more other departments, chosen to form a coherent program with the philosophy courses taken. This program must have the support of one member of the Department of Philosophy, who will serve as adviser; and it must be approved by the chairman, normally by the end of junior year. Formal admission to major standing requires the satisfactory completion of at least one philosophy course at the 200 level.

Departmental Course Prerequisites

All 100-level courses have no prerequisites; 200-level courses require sophomore standing, or one previous course in philosophy; 300-level courses require PHL 101, unless another course is indicated in the course description. Prerequisites may always be waived by permission of the instructor.

Departmental Honors

Students who think they might qualify for departmental honors should submit an example of their philosophical writing to the chairman early in the semester before they expect to graduate. This should normally be a substantial paper written in PHL 395, but two or three papers written in other courses will be acceptable. If this work is judged to be of sufficiently high quality, it will be read by the rest of the Department, and a conference to discuss it with the student will be arranged. Departmental honors are thus based upon written and oral achievement in philosophy, as well as general performance in courses.

Requirements for the Major in Philosophy with Concentration in Area Studies

(East Asian Studies or South Asian Studies)

Six departmental courses (24 credits) are required, including PHL 101, and PHL 351 (for East Asian Studies) or PHL 352 (for South Asian Studies). For requirements in area studies, see p. 233.

PHL 221 Theories of Justice, Power, and Freedom (4 credits)

The meanings of 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. Offered every other year.

PHL 250 Philosophies and Religions of Asia (4 credits)

A study of the major religions of India, China, and Japan with emphasis on their philosophical significance. The course will cover Hinduism, Jainism, Confucianism, Taoism, and Buddhism (with special reference to Ch'an or Zen), and will deal with both the ancient traditions and some modern developments. Offered every year.

PHL 260 American Philosophy (4 credits)

An historical survey of American Philosophy, from its beginnings in New England puritanism to the present day. Emphasis on Peirce, James, and Dewey. Offered every other year.

Prerequisites: Sophomore standing or one previous course in philosophy.

PHL 317 Recent Theories of Ethics (4 credits)

Theories of ethics and meta-ethics of the twentieth century, with emphasis on the analysis of ethical statements. Typical problems considered include the possibility of supporting ethical claims, the place of reason, emotion, and persuasion in ethics, and ethical relativism. Offered every other year.

Prerequisite: PHL 101. Recommended: PHL 103.

PHL 325 Philosophy of Religion (4 credits)

Examination of arguments for and against the existence of God, the nature of religious language, the relations between religion and philosophy. Offered every other year.

Prerequisite: PHL 101.

PHL 329 Philosophy of Science

A study of the philosophical problems arising from critical reflection on the sciences. Typical topics: the structure of scientific explanation, the nature of scientific laws and theories, causality, confirmation. Some notation from formal logic will be used. Offered every other year.

Prerequisites: PHL 101, and at least one course in physical science, either in high school or in college.

PHL 333 Theories of Knowledge (4 credits)

Critical examination of knowledge claims and of the types of justification given in their support. Typical topics are scepticism, empiricism, rationalism; the relations between sensations, images, and concepts; meaning and truth; believing and knowing; intuition; limits of knowledge. Offered every other year.

Prerequisite: PHL 101.

PHL 337 Philosophy of Mind (4 credits)

An examination of selected topics or works in the philosophical literature about mind. Some of these topics are: the nature of psychological explanation, the relation of mind and body, thinking, motivation, emotions, action, concepts, remembering, images. Offered every other year.

Prerequisite: PHL 101.

PHL 340 Metaphysics (4 credits)

An intensive study of selected influential attempts to characterize the basic features of the world, or of the analysis of basic concepts involved in such

characterizations of the world. Emphasis on reformulations of metaphysical problems, such as the relation between nature and mind, in the light of modern advances in scientific knowledge and sophistication. Offered every other year. Prerequisite: PHL 101.

PHL 351 Chinese Philosophy (4 credits)

Systematic study of the rise and development of Chinese philosophy, with emphasis on the classical (Chou) period. Confucianism, Taoism, Mohism, Legalism, the "Hundred Schools." The impact of Buddhism on Chinese philosophical thinking will be examined with special reference to the growth of Ch'an (Zen) Buddhism. Offered every other year. Prerequisite: PHL 101. Recommended: PHL 250.

PHL 352 Indian Philosophy (4 credits)

An examination of the presuppositions and doctrines of India's major philosophic systems. Both Indian logic and metaphysical speculation will be covered. Realistic, idealistic, pluralistic, dualistic, and monistic systems will be considered, with some reference to contemporary developments. Offered every other year. Prerequisite: PHL 101. Recommended: PHL 250.

PHL 355 Existentialism (4 credits)

A study of several different types of existentialist philosophy, ranging from Kierkegaard to Sartre and Heidegger. Some attention may also be given to phenomenology. Offered every other year. Prerequisite: PHL 101.

PHL 357 Contemporary Analytic Philosophy (4 credits)

A study of the main forms of twentieth century analytic philosophy and those philosophers who have had most influence in shaping it. Offered every other year. Prerequisite: PHL 101.

PHL 365 Topics in Philosophy (4 credits)

A study of one philosophic topic or problem which cuts across the usual divisions of the field. Offered every year. The instructor will announce the topic to be studied in the schedule of classes, and any prerequisites: normally PHL 101 is a minimal prerequisite.

PHL 370 Symbolic Logic (4 credits)

A study of standard first-order symbolic logic, emphasizing quantification theory and including identity theory and logical semantics, and possibly including an introduction to set theory and formal metatheory. The logical system is approached both as a formal system and as a theoretical analysis of human reasoning. Recommended as a companion course for all fields of study involving the use of formal models, and especially recommended for fields of study involving language analysis.

Prerequisites: PHL 102 or MTH 121 or CIS 180 or an equivalent. An equivalent preparation could include experience in geometry, finite mathematics, probability calculus, computer programming, or some other formally rigorous study.

PHL 375 Philosophy of Language (4 credits)

An inquiry into philosophical questions concerning the nature of natural language, with emphasis on the problem of meaning. Some consideration of the status of appeals to language in philosophical argument. Offered every other year.

Prerequisites: PHL 102 and one of either LIN 177 or SCN 201 or PHL 357. For accepted equivalents consult the instructor.

PHL 382 Ancient and Medieval Philosophers (4 credits)

An intensive study of the works of one major philosopher of the ancient or the medieval period. The specific philosopher to be considered will vary from year to year. May be repeated for credit. Offered every year. Identical with CLS 382.

Prerequisite: PHL 101. Recommended: PHL 204 or 205, depending on the philosopher studied.

PHL 383 Modern Philosophers (4 credits)

An intensive study of the works of one major philosopher of the period from 1600 to the present. The specific philosopher to be considered will vary from year to year. May be repeated for credit. Offered every year.

Prerequisite: PHL 101. Recommended: PHL 206 or 207, depending on the philosopher studied.

PHL 390 Directed Readings in Philosophy (2 credits)

A tutorial, intended primarily (but not exclusively) for majors, in which a student may study a restricted topic of special interest to him which is not treated in regular courses, or which he wishes to pursue in greater detail. Students should have a clear idea of what they want to study before approaching a faculty member. The Department Chairman will often know best which professor the student should approach on a given topic. Graded "S" or "N."

Prerequisite: PHL 101 and consent of the Department.

PHL 395 Independent Study in Philosophy (4 credits)

Essentially the same as PHL 390, but in addition to reading and consultation with an instructor, the student will be expected to do some writing, normally including a substantial term paper.

Prerequisite: PHL 101 and consent of the Department.

PHL 497 Apprentice College Teaching (4 credits)

A course open to any well-qualified philosophy student who obtains consent of a faculty member to assist in a regular college course. The apprentice should be capable of assuming limited teaching duties.

Prerequisite: Permission of the instructor.

DEPARTMENT OF PHYSICS

CHAIRMAN: ABRAHAM R. LIBOFF

PROFESSORS: Abraham R. Liboff; John M. McKinley;
Ralph C. Mobley; Robert M. Williamson

ADJUNCT PROFESSOR: Gifford G. Scott

ASSOCIATE PROFESSORS: Norman Tepley; Paul A.
Tipler

ASSISTANT PROFESSORS: Granvil C. Kyker, Jr.;
W. Donald Wallace

The courses of study offered by the Department of Physics are grouped into two categories — pre-professional career programs and individual courses for those students with broad interests in contemporary human culture. The latter are strongly recommended as experiences in science for students planning to go into a wide range of careers, including law, business, criminology, art history, music, government, library science and journalism.

Programs of study lead to the degrees of Bachelor of Science, Bachelor of Arts and Master of Science (described in the Graduate Bulletin). The Bachelor of Science degree major in physics is intended primarily for students who plan to become professional scientists and qualifies them for graduate studies in the physical sciences or research positions in government and industry. Those students who complete the Medical Physics degree program will be able to seek a career in Medical Physics or in Medicine. The Bachelor of Arts degree major in physics is intended primarily for students with broader interests, who desire a less specialized background in physics, as for example, students who plan to take graduate work in a non-science field, or teach in secondary schools. The Bachelor of Arts degree program does not necessarily preclude a professional career in science if the student elects to supplement the program requirements with additional courses.

Those students interested in a career in physics and public policy are urged, early in their undergraduate work, to seek guidance in either the Department of Physics or Political Science. Specially selected students, with a double major, or major and 20-24 credits, in physics and political science,

may qualify for a senior year internship in Washington or Lansing.

Requirements for the Bachelor of Science Major in Physics

(a) 30 credits in physics courses at or above the 200 level, including either PHY 371 (Modern Physics) or PHY 472 (Quantum Mechanics I).

(b) PHY 158 Laboratory.

(c) 16 credits of mathematics, at a level not below MTH 154.

(d) 8 credits of Chemistry, at a level not below CHM 114.

(e) 2 credits of computer programming, or equivalent experience.

(f) Fulfillment of all other University graduation requirements.

Requirements for the Bachelor of Science Degree in Medical Physics (see p. 242)

A total of 128 credits is required, including, in basic science: PHY 150, 151, 152, 158, 247, 271, 317, 318, 331, 361, 371, 381; BIO 111, 113, 221; CHM 114, 115, 117, 118, 203, 217, 305; MTH 154, 155, 254, 255; CIS 180. For those medical physics students also wishing to meet the premedical requirements, an additional three courses — BIO 112, 114, and 222 should also be taken. In the senior year medical physics students attend a selected group of courses, amounting to 10 credits, given in Oakland County hospitals. Included are PHY 441-442 (Physics of Radiology), PHY 443-444 (Nuclear Medicine) and PHY 445 (Medical Instrumentation). An additional 4 credit in-hospital practicum (PHY 490) is required of all medical physics students.

Requirements for the Bachelor of Arts Major in Physics

(a) 52 credits in physics, mathematics or chemistry of which,

(b) at least 32 credits shall be in physics of which,

(c) at least 22 credits shall be in courses with numbers above 200.

(d) Fulfillment of all other University graduation requirements.

**Requirements for the Secondary Teaching Major
in Physics**

ED 244, 245, 428, 455, in addition to the requirements for the Bachelor of Arts major in physics.

**Requirements for the Secondary Teaching Minor
in Physics**

Twenty credits in physics are required.

**BACHELOR OF SCIENCE MAJOR
IN PHYSICS**

(A Typical Program)

FALL**Semester 1**

CHM 114
CHM 117
MTH 154
PHY 150
Learning Skills or
Distribution Requirement*

FALL**Semester 3**

PHY 152
PHY 158
MTH 254
CIS 180
Distribution Requirement*

FALL**Semester 5**

PHY 318
PHY 331
PHY 341
PHY 371
Distribution Requirement*

FALL**Semester 7**

PHY 421**
PHY 472**
PHY 490**
Elective

WINTER**Semester 2**

PHY 151
CHM 115
CHM 118
MTH 155
Learning Skills or
Distribution Requirement*

WINTER**Semester 4**

PHY 247
PHY 271
PHY 361
MTH 255
PHY 317

WINTER**Semester 6**

PHY 381
MTH 431**
Distribution Requirement*
Distribution Requirement*

WINTER**Semester 8**

PHY 482**
PHY 490**
Elective
Distribution Requirement*

*For general education requirements, see p. 54.

**Suggested electives for students planning graduate work in Physics.

BACHELOR OF SCIENCE IN MEDICAL PHYSICS

(A Typical Program)

FALL	WINTER	SPRING
Semester 1	Semester 2	PHY 158
PHY 150	PHY 151	CIS 180
MTH 154	MTH 155	
CHM 114	CHM 115	
CHM 117	CHM 118	
Learning Skills or Distribution Requirement*	Learning Skills or Distribution Requirement*	
FALL	WINTER	SPRING
Semester 3	Semester 4	BIO 221
PHY 152	PHY 347	BIO 222**
BIO 111	PHY 271	
BIO 112**	BIO 113	
CHM 203	BIO 114***	
Distribution Requirement*	CHM 305	
FALL	WINTER	
Semester 5	Semester 6	
PHY 317	PHY 371	
PHY 361	PHY 381	
MTH 254	PHY 318	
Distribution Requirement*	MTH 255	
	CHM 217	
FALL	WINTER	
Semester 7	Semester 8	
PHY 441	PHY 442	
PHY 443	PHY 444	
PHY 445	PHY 490	
Distribution Requirement*	Elective	

*For general education requirements, see p. 242 in the Health Science programs under inter dept. programs.

**Additional laboratory courses recommended for those students wishing also to meet the premedical requirements.

Premedical students may fulfill their requirements in physics by taking PHY 101-102 and PHY 158. These students are urged also to enroll in PHY 247 and PHY 271.

PHY 101-102 General Physics

An introduction to classical and modern physics. Particle mechanics, wave motion, electricity and magnetism, properties of atoms and atomic systems are considered. Calculus is not required. Not intended for students majoring in physics, chemistry, engineering, or mathematics.

Prerequisites for PHY 101: High school algebra and trigonometry or MTH 134.

Prerequisites for PHY 102: PHY 101 or permission of the Instructor.

Each of the following courses, numbered less than 150, but also including PHY 169, is designed for the non-science student who seeks an experience in science. These courses may be used to fulfill the general education requirement for the College of Arts and Sciences in Natural Science.

PHY 104 Classical Astronomy (4 credits)

Early observations and theories. The universe as seen by Ptolemy and Copernicus and their concepts as refined by Brahe, Kepler, and Newton. Light and optical instruments. The earth — its place and motion in the universe. Time and seasons. The moon — its mass, size, composition, and motion — eclipses. The planets — their mass, size, composition, and motion. Manned and un-manned exploration of the moon and planets.

Prerequisite: High school algebra with some trigonometry desirable.

PHY 105 Modern Astronomy (4 credits)

Stellar astronomy — energy production in the sun and stars. Properties of starlight. Classification of stars. Radio astronomy. Stellar evolution. Gravitational collapse. New astronomical objects — quasars, pulsars, radio galaxies. The primeval fireball. Cosmology — origin, history, and future of the universe.

Prerequisite: High School algebra with some trigonometry desirable.

PHY 106 Earth Sciences I (4 credits)

The earth as a planet: earth's orbit, rotation, time, maps, moon, tides, magnetism, atmosphere, solar radiation, meteorology, atmospheric circulation, ocean waters, world climates. Recommended for students in environmental studies, environmental health science, education majors, and as a general elective.

Prerequisite: None

PHY 107 Earth Sciences II (4 credits)

A continuation of PHY 106: rocks and minerals, earth's interior, continental crusts, continental evolution, historical geology, soil water, weathering, runoff and floods, glaciers, wind, the soil, geologic maps. May be taken independently of PHY 106.

Prerequisite: None

**PHY 121 Introduction to the Physics
of Sensory Systems (4 credits)**

The senses as systems which allow us to respond to external stimuli. How the senses function as detectors or transducers. Special emphasis on visual and auditory systems. Speech production and its acoustic characteristic and recognition. The physical properties of light and sound are presented in a lecture-demonstration format which provides the student little prepared in physical science with an intuitive understanding of these phenomena. Vision and hearing are then related to the structure of the eye and ear and their response to light and sound. Recommended for psychology, biology and speech communications students.

Prerequisite: High school algebra.

PHY 127 Human Aspects of Physical Science (4 credits)

A lecture course designed primarily for the student wishing to explore the interaction between the physical and social sciences. The format and emphasis

will vary so as to reflect the impact of physics on contemporary man, particularly on his politics, economics, and behavior, as well as his environment and well-being. Where necessary, non-rigorous explanations of relevant physical phenomena and processes will be interwoven into the lectures to provide balance and insight.

Prerequisite: None

PHY 147 Elementary Modular Electronics (4 credits)

Practical applications course emphasizing recent developments in modular electronics by means of lectures, demonstrations, and laboratory work. No formal background in electricity or college level mathematics required. Simple circuits, work with readout devices such as voltmeters, ammeters, recorders, oscilloscopes and counters; processing of biomedical signals from EKG, EEG, body and organ scanners, etc.; integrated circuit modules and types of problems encountered; digital and analog computer inputs.

Prerequisite: High school algebra.

PHY 169 Physics in Science Fiction (4 credits)

A study of physical principles as revealed by the extent to which science fiction authors observe or violate them. Selected readings, discussions, and written papers. No mathematics required beyond algebra. Graded S/N.

Prerequisite: High school algebra.

The following courses are designed primarily for the physics major and for other majors in the sciences and engineering.

PHY 150 Perspective and Method in Contemporary Physics (4 credits)

A survey of and prelude to current work in physics: pulsars, neutron stars, black holes, quarks, gravitational radiation, membrane potentials, symmetries in nature, current analytical methods in physics and techniques of problem solving; evolving relation of the physicist to societal problems. Strongly suggested for beginning physics majors; recommended as elective for all science students.

Prerequisite: Non

PHY 151-152 Introductory Physics (4 credits each)

Mechanics, electricity and magnetism, wave motion, and optics for science, mathematics, and engineering students.

Corequisite for PHY 151 is MTH 154.

Corequisite for PHY 152 is MTH 155.

PHY 158 Introductory Physics Laboratory (2 credits)

Prerequisites: High school physics, PHY 101, or PHY 151; MTH 122 or MTH 154.

PHY 271 Introduction to Nuclear Physics (4 credits)

A basic course for all science and engineering students. Topics include natural and induced radioactivity; x-rays; radiation dosimetry and application and instrumentation in nuclear physics; radiation protection and health physics. Especially recommended for students in health sciences, premedical studies, medical physics, etc.

Prerequisites: PHY 151-152 or PHY 101-102

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 (4 credits)

Geometrical optics, optical instruments, wave theory of reflection, refraction, interference, diffraction, and polarization of light.

Prerequisites: PHY 152, MTH 155.

PHY 341 Electronics

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)

A.C. circuits and electronics experiments.

Corequisite for PHY 347 is PHY 341.

PHY 361 Mechanics I (4 credits)

Applications of Newton's laws to particles, systems of particles, harmonic oscillators, central forces, accelerated reference frames, and rigid bodies.

Prerequisite: PHY 152

Corequisite: MTH 254

PHY 371 Modern Physics (4 credits)

Relativity, atomic physics, the experimental bases of quantum mechanics, and properties of nuclei.

Prerequisites: PHY 152, MTH 155.

PHY 381 Electricity and Magnetism I (4 credits)

The development of Maxwell's equations from the experimental laws of electricity and magnetism. Vector calculus, potential theory, boundary conditions on the electromagnetic field vectors, field energy, properties of dielectrics, conductors, and magnetic materials.

Prerequisites: PHY 152, MTH 254; MTH 255 desirable.

PHY 400 Seminar (1 credit per semester)**PHY 405 Special Topics (2, 4, 6 credits)**

Prerequisite: Permission of the Department.

PHY 417-418 Advanced Laboratory (2 credits each)

Methods of experimental physics. Experiments and projects in all areas of classical and modern physics, with emphasis on research techniques and detailed analysis of experimental data.

Prerequisites: PHY 317-318, 341, and 347-348, or equivalent.

Prerequisites or corequisites: PHY 331, 361, and 371, or equivalent.

PHY 421 Thermodynamics (4 credits)

The zeroth, first and second laws of thermodynamics with applications to pure substances. Introduction to the kinetic theory of gases and to statistical mechanics.

Prerequisites: PHY 361, MTH 255.

PHY 472 Quantum Mechanics I (4 credits)

Principles of non-relativistic quantum mechanics, Schrodinger wave equation, expectation values of energy, position, momentum and angular-momentum operators, spin, perturbation theory, identical particles — with applications to atomic systems.

Prerequisites: PHY 361, MTH 255.

PHY 482 Electricity and Magnetism II (4 credits)

Multipole fields, solutions of Laplace and Poisson equations, electromagnetic

waves in insulators and conductors, the derivation of the laws of optics from Maxwell's equations.
Prerequisites: PHY 381, MTH 255.

PHY 490 Independent Study and Research (2, 4, 6 credits)

Prerequisite: Permission of the Department.

Courses in physics on the 500 level are graduate courses available to well-prepared undergraduate students with permission of the Department.

PHY 542 Advanced Electronics (4 credits)

Selected topics in the analysis and design of electronic circuits.
Prerequisite: PHY 341.

PHY 548 Advanced Electronics Laboratory (2 credits)

Prerequisite: PHY 348.

PHY 562 Mechanics II (4 credits)

Methods of Lagrange and Hamilton, tensor algebra, rigid bodies in three dimensions, continuous media, and coupled systems.
Prerequisites: PHY 361, MTH 255.

PHY 573 Nuclear Physics (4 credits)

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

PHY 574 Introduction to Solid State Physics (4 credits)

An introduction to the thermal, electrical, and magnetic properties of solids (with emphasis on current experimental techniques), including periodic structure, lattice dynamics, electron interactions and behavior, transport properties, the Fermi surface and optical behavior, and super-conductivity.
Prerequisite: PHY 472 or equivalent.

Other advanced graduate courses in physics described in the Graduate Bulletin are:

PHY 600 Seminar (1 credit)

PHY 673 Quantum Mechanics II (4 credits)

PHY 674 Quantum Mechanics III (4 credits)

PHY 690 Research (2 to 12 credits)

DEPARTMENT OF POLITICAL SCIENCE

CHAIRMAN: EDWARD J. HEUBEL

PROFESSORS: Sheldon L. Appleton; Thomas W. Casstevens; Edward J. Heubel; Roger H. Marz; John E. Rue

ASSOCIATE PROFESSOR: James R. Ozinga

ASSISTANT PROFESSORS: Thomas W. Church, Jr.; Susan G. Hadden

INSTRUCTORS: L. Thomas Farley; Vincent Khapoya; John S. Marks; William D. Morris

ASSOCIATED FACULTY PROFESSOR: Carl R. Vann
(Behavioral Sciences and Political Science)

Political science offers a concentrated and systematic study of politics at all levels of government and in many different cultural and national settings. Policy-making, law, administration, international politics, foreign governments, and theories and philosophies of government are among the many topics explicated by these courses. The general educational aim is to increase the student's awareness and understanding of the broad realm of politics and government. Many students electing this major wish to prepare for careers in public service, law, practical politics, or the teaching of government and social studies. The liberal arts degree is not designed as a vocational degree; however, there are course combinations and selections that are appropriate for students with such defined career objectives. These alternatives will be mentioned below.

Departmental honors are conferred upon graduates who successfully complete a PS 490 research project and paper at the honors level during their senior year. The student seeking honors should obtain the permission of the Department prior to registering for a 490 project. There are opportunities for advanced students to undertake independent readings and research under the PS 390 and PS 490 numbers; these also require pre-enrollment in the Department office.

Requirements for the Liberal Arts Major in Political Science

The major requires nine courses (36 credits) in political science including PS 100, PS 131, and PS 221 or PS 222. These

courses are offered every Fall and Winter semester. The rest of the major can be freely elected among the offerings of the Department as listed in this catalog.

Recommended courses for freshmen and prospective majors

For the freshman, or the general student with some interest in political science, the introductory courses American Politics (PS 100) and Foreign Political Systems (PS 131) are recommended. U.S. Foreign Policy (PS 115) and Contemporary Political Issues (PS 110) are suited to both the general student and the prospective major in the Department. PS 110 will deal selectively with a current political issue or topic as announced in the bulletin of classes each semester. Prospective majors might also consider either Western Political Thought (PS 272-273) or Communism (PS 277) as an indepth background to many other course topics in the major.

Recommended courses for students interested in public service or governmental careers

For the student who seeks a career in government service it is advisable to pursue courses in aspects of American Politics (PS 301, 302), law (PS 241, 342, 343, 440, 441), public administration (PS 251), local and metropolitan politics (PS 205), and policy analysis (PS 400, 401). The prospective administrator should improve his skills in quantitative analysis, through PS 221 or PS 222, and, outside the Department, through courses in computer science, economics, and management.

Recommended courses for students interested in Law School

The political science major interested in law school should elect the law courses given in the department — Law and Politics (PS 241), the American Legal System (PS 342 and PS 343), International Law (PS 313) and, when offered, the Seminar in Public Law (PS 440, 441). The pre-law political science major may obtain more information by consulting the collection of law school catalogs maintained by the Department office and by contacting the Department's pre-law advisor. See page 253 of this catalog for advice to students planning legal careers.

Recommended courses for students interested in graduate study

The undergraduate political science program may be pursued as a preparation for advanced graduate programs given at other universities. Some careers in public administration and planning require a master's degree. Careers in teaching political science in a community college require an M.A.

degree, and university level teaching and research normally require the Ph.D. degree. Students with these career aspirations may acquire brochures from the Departmental office and are welcome to consult any of the faculty for more detailed information.

The Liberal Arts Political Science Major and Concentrations

It is possible to pursue a reduced major in political science in combination with one of a number of concentrations which are described elsewhere in this catalog. Included as options are the Speech Concentration (see p. 226), the concentration in Social Justice and Corrections, the Computer Information Science Concentration, and the several area concentrations: East Asia, South Asia, Latin America, and the Slavic Area (see p. 233).

For students who wish to emphasize political science and pursue a secondary education career in social studies, the appropriate program information can be found on p. 252 of this catalog.

PS 100 Introduction to American Politics (4 credits)

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

PS 110 Contemporary Political Issues (4 credits)

Selected topics dealing with current political issues or public policy problems. The particular topic will be announced at the time of offering. The course is designed for the general student and will be available with no prerequisites.

PS 115 U.S. Foreign Policy (4 credits)

Study of the foreign policy issues and challenges confronting the United States in the nuclear age, in the light of the historical evolution of American diplomacy, and of the limitations imposed upon foreign policy makers by public opinion and the exigencies of domestic politics. Offered in the Winter Semester.

PS 131 Foreign Political Systems (4 credits)

Analysis of the politics and governmental systems of selected countries in the contemporary world; types chosen range from established constitutional democracies and totalitarian systems, to movements and regimes of new developing nations. Offered in the Fall and Winter Semesters and in the Spring Session.

PS 163 Black Politics (4 credits)

Analysis of Afro-Americans and their relationship to the American political system. Emphasis is given to Black political ideologies and thought, political organizations and strategies, and forms of political participation, both electoral and non-electoral.

PS 205 Politics of the Local Community (4 credits)

Study of state and local governments, local political forces, trends in metropolitan and suburban politics, problems of planning in an age of urbanization. Offered in the Fall Semester.

PS 213 International Politics (4 credits)

Intensive interdisciplinary study of concepts and hypotheses basic to understanding and analysis of relations among nations. The class may engage in a

simulation exercise in international conflict and in the analysis of a number of actual cases to gain experience in the application of the hypotheses studied. Offered in the Fall and Winter Semester.

PS 221 Systematic Political Analysis (4 credits)

An introduction to formal models in political science. Offered in the Fall and Winter Semesters.

Prerequisite: Sophomore standing.

PS 222 Measurement and Methodology (4 credits)

An introduction to the design of research, the measurement of political variables, and the analysis of data.

PS 241 Law and Politics (4 credits)

A broad survey of the relationship of law and legal systems to politics and political systems. The student will be exposed to the classic jurisprudential, historical, anthropological, and comparative treatments of the subject. Offered in the Fall and Winter Semesters.

Prerequisite: PS 100.

PS 251 Public Administration (4 credits)

Intensive study of government in action, with special attention to policy formulation, organization, personnel administration, supervision, coordination, administrative control, and accountability. Offered in the Winter Semester.

Prerequisite: PS 100.

PS 271 American Political Thought (4 credits)

The writings of prominent American thinkers and statesmen whose ideas have influenced the development of the American policy will be considered. Selected texts by European thinkers will also be examined with a view to their influence on America. Not offered on any set schedule.

Prerequisite: PS 100 or permission of the instructor.

PS 272, 273 Western Political Thought (4 credits each)

A two semester survey of Western political philosophy. Each major philosopher, from Plato to Marx, is placed in his historical setting so as to show the interrelationships between the philosopher's environment and his ideas. Offered regularly Fall and Winter Semesters.

PS 277 Communism (4 credits)

The development of revolutionary socialism from early Marxism to the present day. The course analyzes the relevance of Marxism to a variety of contemporary revolutionary situations. Offered in the Fall Semester.

PS 290 Political Science Laboratory (2 or 4 credits)

From time to time, collateral, independent work of various kinds will be offered to students in conjunction with regular departmental courses. These opportunities may be limited to students enrolled in particular courses and may be restricted to political science majors. Such work may be taken more than once. Not offered on any set schedule.

Prerequisite: Permission of the Instructor before registration.

PS 301 American Presidency and the Executive Process (4 credits)

A study of presidential politics, decision-making, and leadership in the American political system. Offered in the Winter Semester.

Prerequisite: PS 100.

PS 302 Legislative Process and Public Policy (4 credits)

A study of legislative behavior and decision-making, emphasizing the problems of public policy development in the American political system. Offered in the Fall Semester.

Prerequisite: PS 100.

PS 313 International Law (4 credits)

An intensive examination of the principles and organization of modern international law. Attention is given to the growing fields of ocean resource, outer space, environmental protection, and information law.

PS 314 Political Socialization (4 credits)

The study of how individuals within the political system come to hold particular attitudes, values, and beliefs which can be viewed as predictive of their political behavior.

Prerequisites: PS 221 or 222.

PS 320 Laboratory in Empirical Methods (4 credits)

An examination of and training in empirical methodology. Topics covered include social science data management, two or three batch and conversational statistical packages, some computer programming, some statistics not covered in PS 222, and different modes of empirical political science research.

Prerequisite: PS 222.

PS 330 Comparative Political Theory (4 credits)

An examination of the various approaches and theories that are used in comparative political research, including theories of development and modernization.

Prerequisite: PS 131.

PS 331 The Political Systems of Britain and Canada (4 credits)

An analysis and comparison of British and Canadian politics, parties, parliament, politicking and public policy.

Prerequisite: PS 131.

PS 332 Politics of the Middle East and North Africa (4 credits)

Examination of the politics of the Middle East and North Africa. The cultural and historical factors that influence the contemporary politics of the area will be emphasized. Topics include religion, social structures, economic problems, the impact of the West, and the Arab-Israel conflict.

PS 333 African Politics (4 credits)

Examination of politics of selected African states, emphasizing West Africa. The primary focus of the course is on political development. Attention is given to traditional and colonial politics as well as to individuals, groups, and institutions that make up the present political process. Offered in the Winter Semester.

Prerequisite: 1 course in Political Science.

PS 334 Political Systems of Southern Asia (4 credits)

Examination of the elements of political life in India and Pakistan. The cultural, historical, social, and economic factors that influence contemporary political institutions; the issues; and the processes by which political conflicts are resolved will be studied. Politics in Ceylon, Nepal, and Himalayan border kingdoms may also be considered.

Prerequisite: UC 066.

PS 335 Politics of Latin America (4 credits)

Analysis of the political systems of Latin America and the historical, social, and economic factors underlying them. The major countries are studied intensively, and a comparative approach is used to examine the variations from democracy to dictatorship and the political instability that characterizes the area. Offered in the Fall Semester.

Prerequisite: PS 131 or UC 068.

PS 336 U.S.-Latin American Relations (4 credits)

Analysis of contemporary relations of the United States with the countries of Latin America. Relations with particular countries will be studied as well as the overall economic, military, and diplomatic aspects of our Latin American policy. The Inter-American system and regional groupings with Latin America will also be studied. Offered in the Winter Semester.

Prerequisite: PS 131 or UC 068.

PS 337 The Soviet Political System (4 credits)

A descriptive analysis of the Soviet society as a political system; its origins, institutions, and political behavior. Trends and developments in the system will be assessed, and comparisons with other political systems will be undertaken. Offered in the Winter Semester.

Prerequisite: PS 277.

PS 338 Modern Chinese Politics (4 credits)

An analysis of the rise of social movements in China after the breakdown of the traditional order; the emergence of the Nationalist and Communist regimes and the triumph of the Communists; the political processes of the People's Republic of China, emphasizing the role of elites in policy formation, ideology, mass support, and the exercise of central power. Offered in the Fall Semester.

Prerequisite: UC 062.

PS 339 Sino-Soviet Relations (4 credits)

The relations between the People's Republic of China and the U.S.S.R., emphasizing the reaction to the Russian experience by the leaders of China and the split between the U.S.S.R. and the People's Republic. Offered in the Winter Semester.

Prerequisite: UC 062.

PS 342 American Legal System I: Principles and Processes (4 credits)

A study of the American legal system in relation to politics and the American political system. The course emphasizes the functioning of the United States Supreme Court as a legal and political instrument. Offered in the Fall Semester.

Prerequisite: PS 241.

PS 343 American Legal System II: Civil Rights and Civil Liberties (4 credits)

Civil rights and liberties in America as defined and protected by the judiciary. Primary emphasis on United States Supreme Court decisions dealing with freedoms of speech, religion and privacy; rights of the accused; racial, ethnic and sexual discrimination. Offered in the Winter Semester.

Prerequisites: PS 241 or PS 342

PS 361 Political Parties (4 credits)

The development of the concept of party in political research and political action; analysis of the growth and function of parties and party competition in modern societies. Offered in the Winter Semester.

PS 364 Voting Behavior (4 credits)

An examination of the voting behaviors of both individuals and groups. Some consideration of survey research, both methods and results, will be included.

Prerequisites: PS 221 or PS 222.

PS 365 Public Opinion (4 credits)

A study of the formation, communication, and change of the politically relevant opinions of individuals and groups in modern societies and of the ways in which these opinions lead to political actions. Offered in the Fall Semester.

PS 381 Political Theory (4 credits)

The role of theory in the study of politics; the use of formal models and systems theories; examination of the problems of developing a science of politics and its relationship to value and policy questions.

Prerequisites: PS 221 or PS 222.

PS 390 Directed Readings (2 or 4 credits)

Readings not normally covered in existing course offerings. Directed on an individual basis. Consent of the Department and permission of the instructor required before registration.

Seminars

From time to time, the Department offers seminar courses at the advanced level in which a topic or problem is studied in depth, and in which individual student research of a significant sort is presented for analysis and criticism. The seminar titles refer to the broad fields of political science within which the problem falls; the precise problems to be studied will be announced by the Department at the time the seminars are offered.

PS 400, 401 Seminar in Public Policy (4 credits each)

PS 410, 411 Seminar in World Politics (4 credits each)

PS 420, 421 Seminar in Political Behavior(4 credits each)

**PS 430, 431 Seminar in the Comparative(4 credits each)
Study of Political Systems**

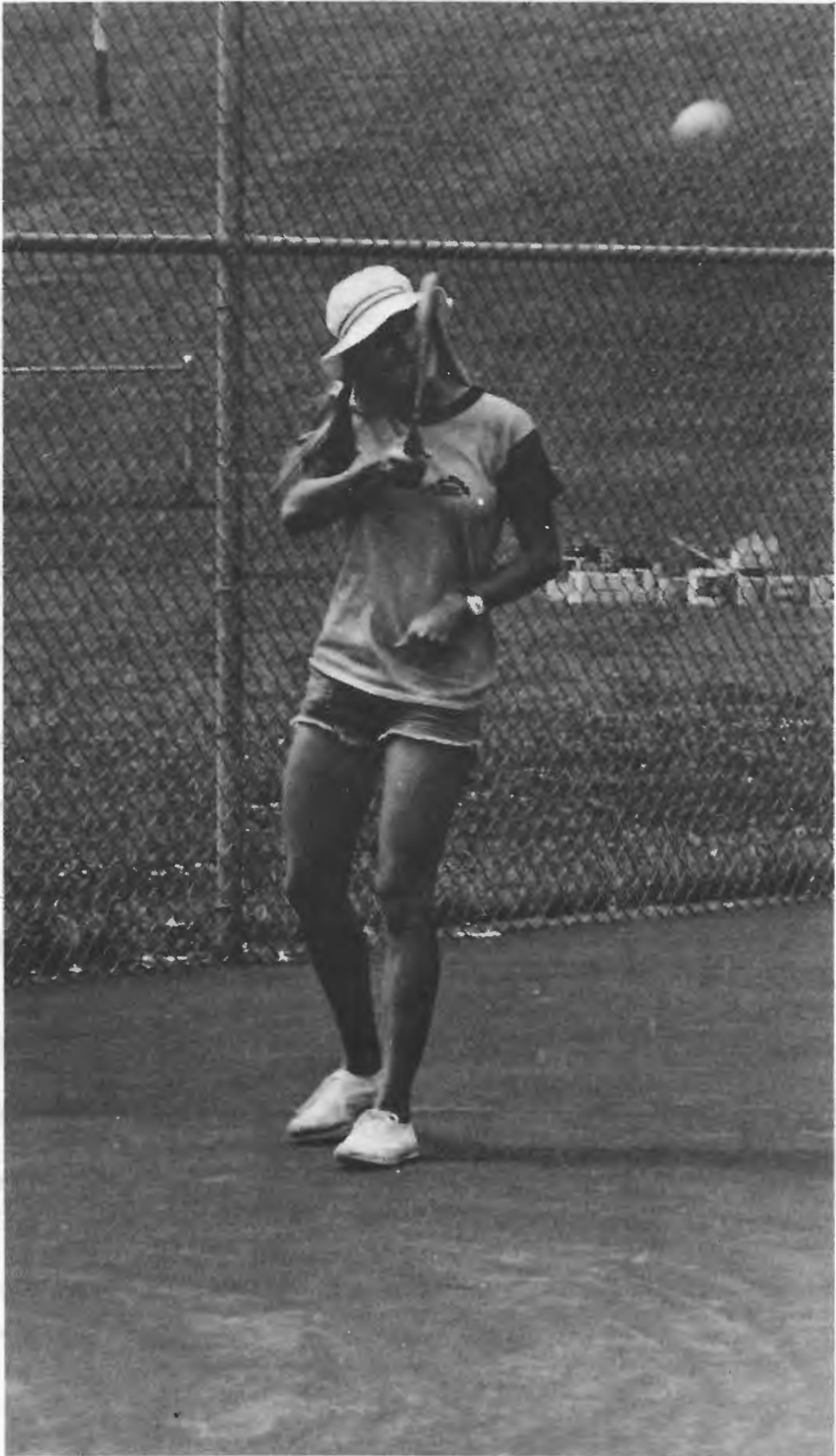
PS 440, 441 Seminar in Public Law (4 credits each)

PS 480, 481 Seminar in Political Theory (4 credits each)

**PS 490 Special Topics or Directed (2,4, or 8 credits)
Research**

Offered in the Fall and Winter Semesters and in the Spring and Summer Sessions.

Prerequisites: All 400-level courses require consent of the Department before registration.



DEPARTMENT OF PSYCHOLOGY

CHAIRMAN: BOAZ KAHANA

PROFESSORS: Edward A. Bantel; David C. Beardslee; Harvey Burdick; Donald C. Hildum

ASSOCIATE PROFESSORS: Jean S. Braun; Daniel N. Braunstein; Max Brill; Kenneth Coffman; Peter Jammers-Murdoch; Boaz Kahana; David G. Lowy; Ralph Schillace; David W. Shantz; Irving Torgoff

ASSISTANT PROFESSORS: Robert N. Blockovich; Joseph S. Dumas; Algea O. Harrison; Leonard Ireland; Gary A. Klein; Virginia E. O'Leary; R. Lucia Perez; F. Edward Rice; Harold Zepelin

INSTRUCTOR: Allen Hess

The undergraduate Psychology program leads to the degree of Bachelor of Arts with a Liberal Arts Major in Psychology. The Psychology Department has no specific course requirements for a major in the department. The single requirement is that the student satisfactorily complete 36 credit hours of course work in Psychology.

The Psychology Department recognizes that students are individually quite different one from the other. Nevertheless we have planned our curriculum with at least four general "types" of students in mind, figuring that it is better to think of four types than to think of just one, called "the student." Our types are: (A) the student who plans, after obtaining his or her B.A. in Psychology, to find employment rather than continuing with formal education; (B) the student who wants to become a professional psychologist, and therefore plans to go to a graduate school in psychology; (C) the student who plans to go on in a field, other than psychology, that requires further formal training; and (D) the student who is not sure why he or she is majoring in psychology. The pamphlet **Majoring in Psychology at Oakland University** discusses these types of students further, and makes suggestions to each type as to specific courses which he or she might take. This pamphlet is available through the Psychology Office, Room 357 Hannah Hall. It discusses majoring in psychology in more detail. Modifications in curriculum, etc., semester by semester, are indicated in new versions of the pamphlet which are printed as the need arises. The student majoring in psychology or contemplating doing so should obtain a copy of this pamphlet.

The Psychology Department also prints a pamphlet **On Going to Graduate School in Psychology from Oakland University**. It is intended for students of "type B" who are in either their junior or senior years. It is also available from the Psychology Office.

For programs leading to the degree of Master of Arts in Clinical Psychology, in Developmental Psychology, or in General Psychology from Oakland University, see the **Oakland University Graduate Bulletin**, available from the Graduate Office, Room 201 Hannah Hall.

NOTES

At the present time, Concentrations of various sorts are being considered within the Psychology Department, and in conjunction with other departments where this seems advisable. Concentrations are groups of courses taken together which give a more integrated picture of certain aspects of psychology. As part of each concentration there will be opportunities for field work. These concentrations will be announced in the pamphlet **Majoring in Psychology at Oakland University** as they may be developed.

Juniors and Seniors are particularly encouraged to do research projects under the course numbers PSY 480-485. Research experiences is at the heart of contemporary psychology. Psychology students are also strongly encouraged to volunteer to serve as subjects for some of the ongoing research. In all cases once the data is collected subjects will be provided with an explanation of the rationale behind the research. The experience of serving as a subject should be valuable.

A student majoring in psychology who wishes to earn departmental honors must submit, approximately six weeks before the end of his or her last semester, an application for honors. Application blanks, having the exact deadline date, are available at the Psychology Department office. The application calls for a list of psychology courses taken, together with an indication of instructors and grades, plus a selection of written materials submitted earlier in courses or produced especially for this application. The written material may consist of anything which the applicant feels will enhance his or her chances of being awarded honors. Independent laboratory or field work will be given special notice. Applications will be read by a departmental committee which is empowered to grant honors to no more than one third of any year's departmental graduates.

Department Courses and Prerequisites

Individual courses in the Psychology curriculum have prerequisites which are intended to be as meaningful as we can

make them and as minimal as is reasonable. The prerequisites also indicate the general level at which the course is conceived. Courses generally are more advanced as the numbering goes from 100 courses towards 500 courses.

PSY 130 Introduction to Social Psychology (4 credits)

Observational, experimental and analytical techniques for the objective study of relationships among men and the effects of these relationships upon the participants in them. The analysis of social functions and roles; the study of the development and change of attitudes, beliefs, and values; the influence of social groups on the individual; and the development of personality in relation to the social milieu are considered. Required of all teaching candidates, who should take this course in one of the first two semesters. Formerly listed as UC 054.

Prerequisite: None

PSY 146 Foundations of Contemporary Psychology (4 credits)

The basic processes studied by psychologists. Topics include the central psychological processes of learning, perceiving, remembering, thinking, emotion, motivation, etc. Also looks at the comparative and physiological approaches to these topics.

Prerequisite: None

PSY 215 Psychological and Field Studies in Education (4 credits)

Psychological factors involved in learning and development are examined in lectures, class discussions, and observations of teaching. These observations may be of actual teaching in the schools, or they may be observations of video tapes of teaching. Identical with ED 245.

Prerequisite: PSY 130 (Same as UC 054) or PSY 146.

PSY 220 Abnormal Psychology (4 credits)

The psychodynamics of abnormal behavior, clinical types, methods of investigation, and principles of psychotherapy.

Prerequisite: PSY 130 (Same as UC 054) or PSY 146

PSY 221 Coping Strategies in the Normal Personality (4 credits)

Characteristics of healthy personality in the following dimensions: (1) need gratification; (2) reality contact; (3) interpersonal relationships and (4) growth. Coping strategies in a crisis situation.

Prerequisite: PSY 130 (Same as UC 054) or PSY 146

PSY 230 Environmental Psychology (4 credits)

The relationship between behavior and the man-defined environment. Topics include: human ecology, basic psychological processes and the environment, individual needs in the organization of the environment, social institution and environmental planning.

Prerequisite: One PSY course or UC 054.

PSY 232 Psychology of Women (4 credits)

Psychological variables that repeatedly differentiate women from men, such as passivity, dependence, and lack of self esteem, will be examined in light of existing psychological theory and research. Topics will include sex differences in personality and learning ability, dependence, passivity, identification, role conflict and achievement motivation.

Prerequisite: PSY 130 (Same as UC 054) or PSY 146.

PSY 235 Organizational Behavior I (4 credits)

The relationships between individuals and organizations. Applications from general social and industrial psychology to the management of work performance evaluation, supervision, influence of informal work groups, and behavioral change are surveyed both empirically and theoretically. In all cases, development of the student as an analytical consumer of behavioral data will be stressed. Identical to MGT 330.

Prerequisite: None

PSY 236 Organizational Behavior II (4 credits)

Social Psychology of Organization Behavior. Implications for organizational management of group behavior. Theoretical and empirical approaches to issues such as communication, decision-making, power and authority, conflict, organizational change, leadership, and organizational climate. Emphasis will be placed on developing the student as an analytical consumer of data. Identical to MGT 331.

Prerequisite: PSY 235 or MGT 330.

PSY 241 Individual Differences (4 credits)

Intellectual, motivational, and personality differences associated with age, social roles, sex, ethnic and racial groups, and social class.

Prerequisite: PSY 130 (Same as UC 054) or PSY 146.

PSY 246 Applied Psychology (4 credits)

The areas in which "psychology" has been put to work, such as childrearing, teaching and training methods, personality and aptitude testing, sensitivity training, human engineering, environmental design, animal behavior, etc.

Prerequisite: PSY 130 (Same as UC 054) or PSY 146.

PSY 252 Statistics and Research Design (4 credits)

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.

Prerequisite: PSY 146.

PSY 253 Computers and Society (4 credits)

An introduction to the use of computers in education, medicine, and the behavioral sciences. Emphasis will be on assessing the impact of computers on the quality of life for individuals in our society now and in the future. No previous knowledge of computers is required.

Prerequisite: None

PSY 271 Child Development (4 credits)

Theory and principles of the development of the child from birth to puberty. Selected topics include: maturational processes, learning and motivation, intelligence, the self concept, and child-rearing practices.

Prerequisite: PSY 130 (Same as UC 054) or PSY 146.

PSY 272 Psychology of Adolescence and Maturity (4 credits)

Biological and psychosocial development during adolescence and adulthood will be explored. Theories of adolescence and adulthood will be considered in light of recent research evidence. There will be special emphasis on problems of adolescence from the perspectives of parents and teachers.

Prerequisite: PSY 130 (Same as UC 054) or PSY 146.

PSY 300-9 Topics in Psychology (4 credits)

These courses will be offered occasionally by faculty members wishing to explore special topics of current interest which are not listed among our regular

offerings, either on their own initiative or at the request of a group of students.

Prerequisite: Permission of the instructor.

PSY 320 Theories of Personality (4 credits)

Major theories of human personality development and principles of personality theory building.

Prerequisite: PSY 146 and 2 other Psychology courses.

PSY 321 Experimental Psychopathology (4 credits)

Basic philosophy of science, issues in design and methodology of psychological research with application to abnormal behavior. Experience in data collection.

Prerequisite: PSY 220 and PSY 252.

PSY 330 Research Methods in Social Psychology (4 credits)

Theory and techniques of survey research, field experiments, laboratory experiments and field studies will be covered.

Prerequisite: PSY 130 (Same as UC 054) and PSY 252.

PSY 335 Psycholinguistics (4 credits)

The psychology of language, pointing up the accommodation between the cognitive and physical structure of human beings and the structure of language, the nature of the language learning process, and the consequences of language use. Identical with LIN 335.

Prerequisite: One course in Psychology and one course in Linguistics, or permission of the instructor.

PSY 340 History and Systems of Psychology (4 credits)

How Psychology came to be as it is. From the beginning to the great Experiments and the Schools of Psychology. From the Schools to World War II. From World War II to the present. Men, experiments, theories.

Prerequisites: PSY 146 and two other psychology courses other than PSY 252.

PSY 350 Motivation (4 credits)

The nature of physiological and behavioral mechanism that control an organism's reaction to the demands of its environment.

Prerequisite: PSY 146.

PSY 351 Learning, Memory and Thinking (4 credits)

Approaches to learning, memory, and thinking processes. Includes such topics as conditioning, problem solving, verbal behavior, storage systems, and organization.

Prerequisites: PSY 146 and PSY 252.

PSY 352 Sensation and Perception (4 credits)

Approaches to the basic sensory systems and perceptual processes.

Prerequisites: PSY 146 and PSY 252.

PSY 354 Comparative Psychology (4 credits)

The literature on sub-human animal behavior with reference to its relevance for the understanding of behavior in general. Looks at a range of species from amoeba and the insects up to the primates. Looks at "basic process" behaviors, abnormal behaviors, social behaviors, etc. An introductory course in Biology is recommended.

Prerequisites: PSY 146 and PSY 252.

PSY 355 Physiological Psychology (4 credits)

The physiological mechanisms underlying the behavior of organisms, including man. Treats such topics as the structure of the nervous system and the

principle chemistry of the body. Deals with the physiology of learning, memory, perception, motivation, emotion, etc. An introductory course in Biology is recommended.

Prerequisites: PSY 146 and PSY 252.

PSY 427 Advanced Personality (4 credits)

The development and functioning of the adult person, with emphasis on experimental and clinical approaches to understanding.

Prerequisite: PSY 320.

PSY 430 Advanced Social Psychology (4 credits)

Critical study of selected areas in social psychology conducted by all members of social psychology staff.

Prerequisite: Permission of the instructor.

PSY 433 Attitudes and Opinions (4 credits)

The nature and functions of attitudes, the relations between attitudes and personality and between attitudes and behavior. Attitude measurement, the formation of attitudes, and attitude change, including strategies for persuasion. The manipulation of attitudes and opinions through advertising and political propaganda.

Prerequisites: 4 courses in Psychology (PSY 130 and PSY 330 recommended)

PSY 435 Psychology of Communication (4 credits)

Selected topics from among the following: the nature and origin of language; structural syntactics and semantics and their psychological significance; translation; persuasion; mass communication, including its sources, determinants, organization, messages, audience, and effects.

Prerequisite: PSY 130 (Same as UC 054) or PSY 146.

PSY 451 Experiments in the Basic Processes (4 credits)

Empirical and theoretical investigation of issues in learning, perception, thinking, physiological psychology, and animal behavior, with research projects.

Prerequisite: PSY 321 or 330 or 351 or 352.

PSY 471 Socialization in the Family (4 credits)

Some of the areas of research and theory on socialization process. Areas of focus: attachment and separation, conscience development, sex-role identity, ego-identity, etc. Role of principal agents: e.g., family, peers, school, etc.

Prerequisite: PSY 271.

**PSY 480-485 Readings and Research (2 or 4 credits)
Projects**

Individual readings or laboratory research on a topic mutually agreed upon by a student and a member of the psychology department faculty. (The course numbers will be rotates from one term to another.)

Prerequisite: Permission of the instructor.

PSY 510 Developmental Psychology (4 credits)

Description and evaluation of the principles and theories of development from birth to maturity. Maturational processes, learning, and emotional disturbances will be some of the issues considered.

Prerequisite: Permission of Instructor or acceptance into MAT program.

PSY 512 Tests and Measurement (4 credits)

Theories of measurement and evaluation. Construction and examination of tests of ability, achievement, interests, and special attitudes. Objective tests of personality.

Prerequisite: Permission of Instructor or acceptance into MAT program.

PSY 513 Psychopathology of Childhood (4 credits)

The psychopathology of children and adolescents, emphasizing dynamic and cognitive-perceptual-motor variables.

Prerequisite: PSY 510 or PSY 512, or acceptance into MAT program in special education, or psychology major or permission of instructor.

PSY 520 Advanced Psychopathology (4 credits)

Theories of psychopathology, research literature and in-depth review of approaches to classification and definition of deviant behavior in adults and children.

Prerequisites: PSY 220 and PSY 320.

PSY 540 Behavior Theory and Learning (4 credits)

Conditioning, reinforcement, punishment, drives, and transfer of training will be studied in their relationship to such complex human processes as education, psychotherapy, and the development of motives.

Prerequisites: PSY 252, 351, and two more psychology courses and/or acceptance into the graduate program.

PSY 541 Advanced General Psychology (4 credits)

Covers same material as PSY 146 but more thoroughly. Adds material on other common psychological topics such as developmental, personality and testing, abnormal, and social psychology. Also looks at other less familiar topics. Aimed at student who plans to go on and wants to pause and pick up a total and rounded picture of the field.

Prerequisite: Permission of the Instructor.

PSY 551 Advanced Statistics (4 credits)

Following a review of descriptive and simple inferential statistics, major emphasis will be given to analysis of variance procedures and non-parametric statistics. An introduction to functions and procedures of factor analysis will also be presented.

Prerequisite: PSY 252

PSY 570 Social and Personality Development (4 credits)

Major contemporary theoretical, research, and applied activity focusing on familial and extra-familial socialization, parent-child relations, peer influences, and the impact of social change on personality development. This material will be integrated with field experiences in relevant settings.

Prerequisite: PSY 271 and permission of instructor/or acceptance into graduate program.

PSY 571 Perceptual and Cognitive Development (4 credits)

Major contemporary theoretical, research, and applied activity in the developmental nature of perception, learning, reasoning, concept formation, cognitive style, problem-solving behavior, and language. This material will be integrated with field experiences in relevant settings.

Prerequisite: PSY 271 and four more psychology courses and permission of instructor and/or acceptance into graduate program.

PSY 572 Psychology of Adolescence and Aging (4 credits)

Significant structural, functional, and behavioral changes during adolescence and old age. This material will be integrated with field experiences in relevant settings.

Prerequisite: PSY 271 and permission of instructor/or acceptance into graduate program.

PSY 575 Theories of Development (4 credits)

Major issues and theories concerning the development process from birth to old age. The approaches of such theorists as Lewin, Freud, Piaget, Erikson, and leading exponents of social-learning theory will be examined.

Prerequisite: PSY 271 and permission of instructor/or acceptance into graduate program.

PSY 590-595 Seminar (4 credits)

These seminars will be offered occasionally by faculty members wishing to explore special topics not listed among our regular offerings, either on their own initiative or at the request of a group of students.

Prerequisite: Permission of the Instructor.

PSY 597, 598 Apprentice College Teaching (4 credits)

Supervised participation in the teaching of an undergraduate course in psychology, together with discussion of teaching objectives and methods. Only one of these courses may be offered in fulfillment of departmental requirements.

Prerequisite: Permission of the Instructor.

NOTE: The Department of Psychology offers several other courses which are not listed here because they are graduate program courses and are not open to undergraduates.



DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY

CHAIRMAN: NAHUM Z. MEDALIA
(On Leave Winter 1974)
Jesse R. Pitts, Acting Chairman
(Winter 1974)

PROFESSORS: Nahum Z. Medalia; Jesse R. Pitts

ASSOCIATE PROFESSOR: Harry Gold

ASSISTANT PROFESSORS: Peter J. Bertocci; William Bezdek; Judith K. Brown; James Dow; Karen Sacks (on leave Fall 1973); Jacqueline Scherer

INSTRUCTORS: John Huner; Harold Olofson; Edward Slawski

ASSOCIATED FACULTY: Prof. Philip Singer (Behav. Sci. & Anthro.)

The Department of Sociology and Anthropology participates in several degree programs, each of which is designed to provide the maximum degree of flexibility to serve the student's interest while, at the same time, providing the substantive background required to prepare the student for a career in his chosen field.

Requirements for Majors in Sociology and Anthropology Programs:

1. **Major in Sociology.** SOC 100 and nine other courses (40 credits) in sociology. Of these nine courses, two may be taken in anthropology.
2. **Major in Anthropology.** AN 101, AN 102, and eight other courses (40 credits) in anthropology. Of these eight courses, two may be taken in sociology. (LIN 301, Linguistic Structures, may be substituted for one departmental course.)
3. **Major in Sociology and Anthropology.** SOC 100, AN 101, AN 102, four additional courses (28 credits) in sociology, and three additional courses (12 credits) in anthropology.
4. **Modified Major in Sociology with Concentration in Area Studies.** SOC 100, five additional courses (24 credits) in sociology, and five courses (20 credits) in area studies concentra-

tion (South or East Asia). For more information on this program see the concentration in area studies, on page 233 of this catalog.

5. Modified Major in Anthropology with Concentration in Area Studies. AN 101, AN 102, four additional courses (24 credits) in anthropology, and five courses (20 credits) in area studies concentration (South or East Asia).

6. Modified Major in Anthropology with Concentration in Linguistics. AN 101, AN 102, three additional courses (20 credits) in anthropology, and five courses (20 credits) in linguistics. For further information on this program see the concentration in linguistics on page 247 of this catalog.

7. Modified Major in Sociology with Concentration in Linguistics.

a. Six courses (24 credits) in sociology, including SOC 100 and SOC 310. AN 410 — Ethnology may be substituted for one course in Sociology.

b. Five courses (20 credits) in linguistics, to be selected in consultation with Linguistics Department adviser.

8. Modified Major in Sociology-Anthropology with Concentration in Speech Communication.

a. Six courses (24 credits) in Sociology-Anthropology to include SOC 100 or AN 102.

b. Four courses (16 credits) in Speech Communication to include SCN 201, and 371.

9. Major in Sociology with Concentration in Social Justice and Corrections: See page 251 of this catalog.

10. Major in Sociology with Concentration in Health-Medical Behavioral Sciences. See page 246 of this catalog.

Anthropology

AN 101 Evolution of Man and Culture (4 credits)

Introduction to physical anthropology and archaeology as applied to the evolution of man and culture. Stress placed upon man's development in adaptation to his environment.

AN 102 Man in Culture and Society (4 credits)

Introduction to cultural and social anthropology with emphasis placed upon the continuing adaptation of man to his environment and especially the interactions among culture, society, and natural environment.

AN 200 Advanced Social Anthropology (4 credits)

Examines social structure and social organization in anthropological perspective. Entails the study of economic, political, religious, and kinship systems in the social life of man.

Prerequisite: AN 102 or permission of the instructor.

AN 221 Subsistence and Technology in (4 credits)
Non-Industrial Society

Subsistence activities and technologies will be considered in relationship to the natural and social setting in which they are practiced. Emphasis will be placed on the adaptation of man to his environment, the variations in that adaptation, and the accommodation of other aspects of culture to the food quest.

Prerequisite: AN 102, or permission of the instructor.

AN 231 Child Rearing in Cross-Cultural (4 credits)
Perspective

The cross-cultural diversity of child-rearing practices will be examined, emphasizing their educational role. The rearing of non-human primate young will be considered, as well as the socialization practices of certain western sub-cultures and non-western societies.

Prerequisite: AN 102 or permission of the Instructor.

AN 241 Culture and Personality (4 credits)

Although the culture and personality approach of the past will be considered, emphasis will be on more recent psychological anthropology. A broad range of psychological phenomena will be viewed in relationship to culture and from a cross-cultural perspective.

Prerequisite: AN 102 or permission of the instructor.

AN 251 Peasant Society and Culture (4 credits)

Studies the peasant as a social type as well as his role in the making of great civilizations. Emphasis placed upon the forces for change in peasant societies, especially in the non-Western world.

Prerequisite: AN 102 or permission of the instructor.

AN 261 Survey of African Peoples (4 credits)
and Cultures

A general survey of the geography, history, economy, society, religions, and political system of the different indigenous peoples of Africa. Part of the course will cover the events of the period of European contact.

Prerequisite: AN 102 or permission of instructor.

AN 265 Urban Anthropology (4 credits)

A cross-cultural study of the growth of urban centers in non-Western areas such as Africa. Emphasis will be placed on traditional cities; new emergent urban social structures and culture; patterns of migration to urban centers; the urbanization of individuals; the effect of urban growth on tribal and peasant societies; and the role of the urban anthropologist as participant observer.

Prerequisite: AN 102 or SOC 100 or permission of instructor.

AN 271 Magic, Witchcraft, and Religion (4 credits)

This course will study man's social and personal interaction with beings, creatures, and forces that manifest powers beyond those of ordinary people. The folk beliefs of non-literate people will be given special attention; the transformation of social systems by religious movements will be investigated; and anthropological theories of magic, witchcraft, and religion will be examined as they relate to these and other topics.

Prerequisite: AN 102 or sophomore standing or above.

AN 276 Language in Culture (4 credits)

Language viewed as cultural behavior; its system, acquisition, and use; its relation to history and world view; language as both a reflection of, and influence on, attitudes and behavior; standard languages, social dialects, pidgins, and creoles; writing systems. Identical with LIN 276.

Prerequisite: LIN 176, or AN 101, or AN 102, or permission of the instructor.

AN 281 Primate Behavior (4 credits)

Emphasis will be placed on the various bio-social factors which aid the non-human primates (prosimians, monkeys, and apes) in their adaptation to the environment. Obviously, the implications for human behavior will underscore the discussion. In addition, an attempt will be made not only to involve the student in the classroom but also in actual field studies.

Prerequisite: AN 101 or permission of instructor.

AN 315 Cognitive Anthropology (4 credits)

The goal of this course is to discover how people of other cultures perceive the world around them. The cognitive anthropologist endeavors to describe a culture as it appears to the people in it, not as it appears to an observer from outside. This course will explore the various techniques of investigation and description used to achieve this purpose. They range from the eliciting of biographies to the formal mathematical analysis of semantic structures. Topics included: biographies, concepts of world view, ethno-science, and ethno-epistemology.

Prerequisite: AN 102 or permission of instructor.

**AN 320 Systems of Wealth and Power (4 credits)
in Anthropological Perspective**

This course focuses on the concepts and methods of political and economic anthropology. These two subfields of the discipline will be presented in a manner emphasizing the interrelatedness of political and economic phenomena, with particular reference to preindustrial, non-Western societies.

Prerequisite: AN 102 or permission of instructor.

**AN 321 Problems of Social and (4 credits)
Economic Change**

The role of anthropology in the implementation of programs of socio-economic development is examined, using examples from non-Western areas. The activities of the United Nations and of national governments in the development field are reviewed.

Prerequisite: AN 102 or permission of the instructor.

AN 336 Sex Roles (4 credits)

A look at male and female "nature" in our own and other societies; comparative analysis of sex roles and status in tribal and class societies; and modern anthropological and sociological theories on sex role and status differences.

Prerequisite: SOC 100 or AN 102 or permission of instructor.

**AN 340 Culture and Personality in (4 credits)
Indian Society**

Selected theories of personality are analyzed in relation to national character and to an understanding of Hindu personality and cultural milieu. The persistence of basic Hindu personality and cultural communities is also examined.

Prerequisites: AN 241 or Allport College Introduction to Behavioral Sciences, or permission of instructor.

**AN 351 Social Anthropology of Selected (4 credits)
African Societies**

Intensive studies of selected societies in Africa. The course will emphasize social anthropology, including social organization and the social process, political systems, kinship, economic organization and religious systems.

Prerequisite: AN 200 or permission of the instructor.

AN 361 Contemporary South Asian Society (4 credits)

A study of contemporary rural and urban society in India and Pakistan. Emphasis is placed on social, economic political, and religious life, as well as on

problems of cultural change.

Prerequisite: AN 102 or UC 066 or permission of the instructor.

AN 370 Archaeology of Mesoamerica (4 credits)

Students will be introduced to the pre-Hispanic culture history of Mexico and Guatemala, focusing on the major Indian civilizations — the Aztecs and Mayas — and their neighboring and derivative cultures. Detailed discussion of the major archaeological sites will be presented.

Prerequisites: AN 101, AN 102 or permission of instructor.

AN 371 Cultures of Mesoamerica (4 credits)

Reviews anthropological studies of Indian and Mestizo societies in Mexico and Guatemala. This course will examine the separate socio-economic patterns of these two social types and also their integration into a dualistic social system.

Prerequisite: AN 102 or permission of the instructor.

AN 372 Indians of South America (4 credits)

This course will examine the various adaptations that the native South Americans have made to the different environments that exist in that part of the world. Special South American Indian institutions such as ritual warfare, and dual social organization will be studied. Some of the cultural groups that will be included are: circum-Caribbean tribes and chiefdoms, Andean peasants and herders, tropical forest horticulturalists, Brazilian highland Indians, forest and plains nomads, and southern fishing tribes.

Prerequisite: AN 102 or permission of instructor.

AN 380 Archeology of North America (4 credits)

A survey course which will examine evolution of Native North American Cultures (including Mesoamerica) from 50,000 B.C. to 1500 A.D. Emphasis will be placed on the development of culture areas due to ecological factors as indicated by the archeological record.

Prerequisite: AN 101 or permission of the instructor.

AN 381 Indigenous Peoples of North America (4 credits)

Features selected culture areas of North America, focusing variously on American Indians as well as the Eskimos. Emphasis placed on adaptation to contact with Western Cultures.

Prerequisite: AN 102 or permission of the instructor.

AN 382 Advanced Physical Anthropology (4 credits)

A comparative study of the emergence and diversification of the human species in relation to the morphology and ecology of both modern and fossil man. Based upon modern evolutionary and ecological theory, the course will consider such topics as the physical and physiological variation (sex, race, and age), climatic adaption, and population genetics of Hominids through time and space.

Prerequisite: AN 101 or permission of instructor.

AN 400 History of Anthropological Theory (4 credits)

Traces the historical development of theory in anthropology. Emphasis placed upon recurring problems of theoretical and empirical import to the growth of the discipline as a whole.

Prerequisite: AN 200 or permission of the instructor.

AN 410 Communication, Ethology and Man (4 credits)

Human ethology explores the animal in the human and what prefigures the human in animals. In relating recent ethological (animal behavior) findings and human socio-cultural data, the course will cover such topics as verbal and

non-verbal communication, culture or tradition, spatial relationships, sexuality, ritual, group structure and the definition of social situations. Communication, where used as an organizing concept for the course, will be anthropologically defined.

No prerequisite.

AN 420 Ethnopsychiatry (4 credits)

Presents and analyzes cross-culturally the socio-cultural context of mental illness and the forms of its institutional and medical care. It draws on:

- a. The relevance of family relationships and child-rearing practices to mental illness and the cultural response to mental illness;
- b. Socio-cultural variables in physician-patient, indigenous healer-patient relationship;
- c. The special problems of acculturation and culture change faced by people of emerging countries and America's poor.

Prerequisite: Three (3) Sociology or Anthropology courses.

AN 480 Independent Study and Research (2 or 4 credits)

A tutorial in which the student will pursue a course of reading and research with the instructor. May be repeated only once for credit.

Prerequisites: Major standing in anthropology or related majors and written permission of the instructor.

AN 490 Current Problems in Anthropology (2 or 4 credits)

An advanced seminar in which a topic or problem is studied in depth. Each seminar requires students to do independent readings and writing.

Prerequisites: Major standing in anthropology or related majors and written permission of instructor.

Sociology

SOC 100 Introduction to Sociology (4 credits)

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

SOC 200 Introduction to Sociology of Education (4 credits)

Designed primarily for the secondary education major, this course examines the public school system within the context of contemporary social, political, and economic realities. Discusses unionization, the bureaucratic structure of the school, informal organizations within the school, and the special problems of minority groups.

Prerequisites: SOC 100 and ED 224 or permission of the instructor.

SOC 201 Population Theory and Problems (4 credits)

Provides an historical analysis of world population growth, focusing upon the relationships among population size, population policy, and social and economic development.

Prerequisite: SOC 100 or permission of the instructor.

SOC 202 Character and Social Structure (4 credits)

A study of the relationship of the individual to society from the point of view of the impact of society upon the individual.

Prerequisite: SOC 100 or permission of the instructor.

SOC 203 Social Statistics (4 credits)

Focuses upon problems of data analysis on the nominal and ordinal levels of measurement. Includes survey sampling, scale and index construction, non-parametric statistics, population indices and statistics, and some elementary model building. Requires the equivalent of high school algebra.

Prerequisite: SOC 100 or permission of the instructor.

SOC 205 Sociology of Social Problems (4 credits)

An introductory survey of social problems in areas such as race relations, poverty, delinquency and crime; comparison of sociological with journalistic, theological, and political-legal approaches to social problems.

Prerequisite: SOC 100 or permission of the instructor.

SOC 221 Sociology of Crime and Punishment (4 credits)

A study of the various forms of deviance, from illness and juvenile delinquency to habitual crime; and an analysis of sociological theories developed to explain the phenomenon of crime. A study of modes of control from hospitals to penitentiaries.

Prerequisite: SOC 100 or permission of the instructor.

SOC 231 Racial and Cultural Relations (4 credits)

A study of racial, national, and religious groups, particularly those of the United States. Emphasis will be placed on their historical development, on special problems of adjustment and assimilation, and on specific present-day problems and trends.

Prerequisite: SOC 100 or permission of the instructor.

SOC 255 Industrial Sociology (4 credits)

A study of the relationship between industrial and business organizations and the community; the history of industrial sociology; the study of occupations; the social structure of business and industrial organizations, labor unions, and informal work groups; and the character of occupational life in America.

Prerequisite: SOC 100 or permission of the instructor.

SOC 260 Urban Sociology (4 credits)

The social structure, culture, and ecology of early and contemporary urban communities; institutional responses to the problems of modern urban life.

Prerequisite: SOC 100 or permission of the instructor.

SOC 268 Illness and Death as Forms of Deviance in Modern Society (4 credits)

Discussion of socio-economic factors in etiology and epidemiology of various diseases, including venereal disease, mental illness, alcoholism, drug addiction; analysis of social factors which promote or discourage recognition of certain behavior patterns as illness and transformation of the ill person into a patient; study of impact of illness upon the community and the nuclear family, and the meaning of chronicity for the patient; analysis of customs that surround dying and disposal of the dead, and of professions that specialize in the handling of death.

Prerequisite: SOC 100 or permission of instructor.

SOC 269 Practicum for SOC 268: Illness and Death as Forms of Deviance in Modern Society.

This will involve practicum based upon the SOC 268 curriculum, with participant observation in various patient settings.

Prerequisite: SOC 100 or permission of Instructor, and enrollment in SOC 268.

SOC 300 Social Stratification in Cross-Cultural Perspective (4 credits)

A course which examines the concepts of class, caste, and race in terms of social conflict and social integration. Students will study these problems in a cross-cultural perspective placing emphasis upon comparative materials.

Prerequisite: SOC 100 or permission of instructor.

SOC 304 Sociology of Poverty and Social Welfare (4 credits)

Survey of the development of social welfare programs in the United States, and introduction to methods and procedures developed to deal with problems of poverty. After a general over-view of the field, students study some of the basic techniques used in such areas as case work, community organization, and agency programming. A final, third component of the course will be an analysis and evaluation of current policy debates in social welfare programs.

Prerequisite: SOC 100

SOC 305 Sociology of Religion (4 credits)

An analysis of the changing relationship between social structure and religion. Comparative materials will be examined from pre-industrial societies, Europe during the Protestant Reformation, and the contemporary United States.

Prerequisite: SOC 100 or permission of the instructor.

SOC 306 Philosophical Bases for Social Research (4 credits)

A course in the philosophy of the social sciences beginning with Hume and including the Marxists, the Social Darwinists, the cultural determinists, contemporary functionalism and phenomenology. Emphasis placed upon the assumptions various schools of thought have made about reality and the constraints imposed by these assumptions for consideration of reality.

Prerequisite: SOC 100 or permission of the instructor.

SOC 307 Methods of Social Research (4 credits)

Examines problems and techniques of measurement in contemporary sociological research. Principal concern is with a survey of the diversity of methods available to the sociologist.

Prerequisite: SOC 100 or permission of the instructor.

SOC 310 Contemporary Sociological Theory (4 credits)

A study of contemporary sociological theory starting with Veblen, G.H. Mead, and W.I. Thomas and examining the works of R.K. Merton, Talcott Parsons, Seymour Lipset, William Goode, and S.N. Eisenstadt.

Prerequisite: SOC 100 or permission of the instructor.

SOC 311 Classical Sociological Theories (4 credits)

A study of classical sociological theory stressing the works of Comte, Marx, Durkheim, Pareto, Weber, Simmel, and Freud.

Prerequisite: SOC 100 or permission of instructor.

SOC 325 Corrective and Rehabilitative Institutions (4 credits)

A study of correctional institutions in terms of their levels of security, and levels and types of resocialization pressures. Using a case method approach, problems of interaction within the institution are analyzed, e.g. between inmate and inmate, inmate to guard, guard to supervisor, supervisor to rehabil-

itation specialist. Other topics studied include the development of inmate sub-cultures and the dynamics of crisis (e.g. riots) and equilibrium in correctional institutions.

Prerequisite: SOC 221 or permission of instructor.

SOC 327 Police and Society (4 credits)

A study of police techniques and problems; of deviant citizen-police relations, and of social control in a field where power is high and visibility is relatively low. Topics studied include: the defenses against corruption, the containment concept of police as against the crusading concept of police, personality types in police work, police work in conditions of high racial tension.

Prerequisite: SOC 221 or permission of instructor.

SOC 330 The Sociology of Youth (4 credits)

A cross-cultural analysis of the emerging youth culture in industrial societies. Emphasis will be placed upon the economic, social and political consequences for the rest of society of the emergence of this youth culture.

Prerequisite: SOC 100 or permission of the instructor.

SOC 335 The Family (4 credits)

A comparative and historical treatment of the background of contemporary problems of this institution. Function, forms, and processes are discussed.

Prerequisite: SOC 100 or permission of the instructor.

SOC 336 Sex Roles in Modern Society (4 credits)

An examination of the effects of ideological and technological change on the statuses, occupations, and relationships of males and females in various stages of life.

Prerequisite: SOC 100 or permission of the instructor.

SOC 341 Social Change (4 credits)

The prediction and explanation of social changes in society. Special attention may be given to such mechanisms of change as crowds, publics, mass movements, social movements, revolutions, wars of national liberation, and total cultural revolutions. Implications for social action are discussed.

Prerequisite: SOC 100 or permission of the instructor.

SOC 355 Sociology of Occupations and Professions (4 credits)

An analysis of the structure of major occupations and especially of the major professions, in terms of their publics, their mandates, their clients, and the career lines they offer. Comparisons between "incomplete professions," such as nursing and undertaking and full-fledged professions are made.

Prerequisite: SOC 100 or permission of the instructor.

SOC 360 Political Sociology (4 credits)

An analysis of the sociological factors which influence the distribution of power within a society. Political communication, the maintenance of consensus, the process of revolution, the structure of political parties, and the emergence of new states will be studied; emphasis will vary according to the research interests of the instructor.

Prerequisite: SOC 100 or permission of the instructor.

SOC 368 Sociology of Medical Practice (4 credits)

This course will analyze the structure of the medical profession, its changes from "black-bag" practice to group and hospital-centered practice; also the process of medical training, induction into practice and collegueship and strains that are modally encountered by physicians in their professional career. Paramedical professions will also be considered, such as chiropractors, optometrists, nursing, "paramedics."

Prerequisite: SOC 100 or permission of instructor.

SOC 369 Practicum for SOC 368: (2 or 4 credits)
Sociology of Medical Practice

This will involve field-work based upon the SOC 368 curriculum, with participant observation in various settings of physician-patient interaction or of health care delivery more generally.

Prerequisite: SOC 100 or permission of instructor, and enrollment in SOC 368.

SOC 370 Communities (4 credits)

Community is one of the most important and exciting concepts in sociology. The current interest in developing new communities reflects the concern of many to find new and more effective ways of living together. Students will explore the many meanings of the concept and by use of case studies in a variety of settings, learn how some may be relevant to contemporary living.

Prerequisite: SOC 100 or permission of instructor.

SOC/SCN 371 Forms and Effects of (4 credits)
Mass Communication

The course emphasizes three aspects of mass communications research and theory: analysis of the objectives and techniques of disseminating ideas and information through the mass media; the evaluation of the influence of the media on the values and policy preferences of a variety of individuals, social groups and institutions; and the design and application of research methods and models for the study of the forms and effects of mass communications.

Prerequisite: SOC 100 or sophomore standing and above.

SOC/SCN 378 Social Control of Mass Media (4 credits)

This course is designed to provide an indepth understanding of the major sociological factors which control the informational content of the various sectors of the mass media. Attention will be focused on differences between the structures and processes of control in the print and electronic sectors of the media. Students will be expected to develop such an understanding both through assigned readings and empirical investigations.

Prerequisite: SCN/SOC 371 or permission of instructor.

SOC 380 Sociology of Bureaucracy (4 credits)

A study of bureaucratic forms of organization. Systematic study of theories of bureaucracy and theories of organizational change.

Prerequisite: Soc 100 or permission of the instructor.

SOC 400 Education as a Socializing (4 credits)
Institution

Discussion of concepts and methodology appropriate to cross-cultural and social system research on socializing institutions, with particular reference to those of formal education.

Prerequisites: SOC 100, SOC 200 or permission of instructor.

SOC 402 Small Groups (4 credits)

Focuses on small group relations as a micro-social system, as the interpersonal locus for personality development, and as the continuing expression of macro-social processes.

Prerequisites: SOC 100 or permission of instructor.

SOC 430 Internship in Social Justice (4 or 8 credits)
and Corrections

Field placement and supervision of students in police, prison, and parole organizations and agencies.

Prerequisites: Enrollment in Social Justice and Corrections Concentration; **and** written permission of instructor.

SOC 470 Field Studies in Sociology: (4 credits)
Urban Workshop

Course will attempt to develop students' skills of sociological analysis and interpretation through placement as participant observers in a variety of Detroit Metropolitan social service organizations. Students will meet periodically with instructor for discussion of field activities and of background readings. 4-8 hours/week of field activity will be expected; and written reports of the field study required. Field placements and class meetings to be arranged by instructor. Open to majors in Sociology-Anthropology; to others by permission of instructor.

Prerequisites: Junior standing and completion of any one of the following courses: SOC 200, 221, 231, 255, 260, 300, 335, 355, 380.

SOC 480 Independent Study and (2 or 4 credits)
Research

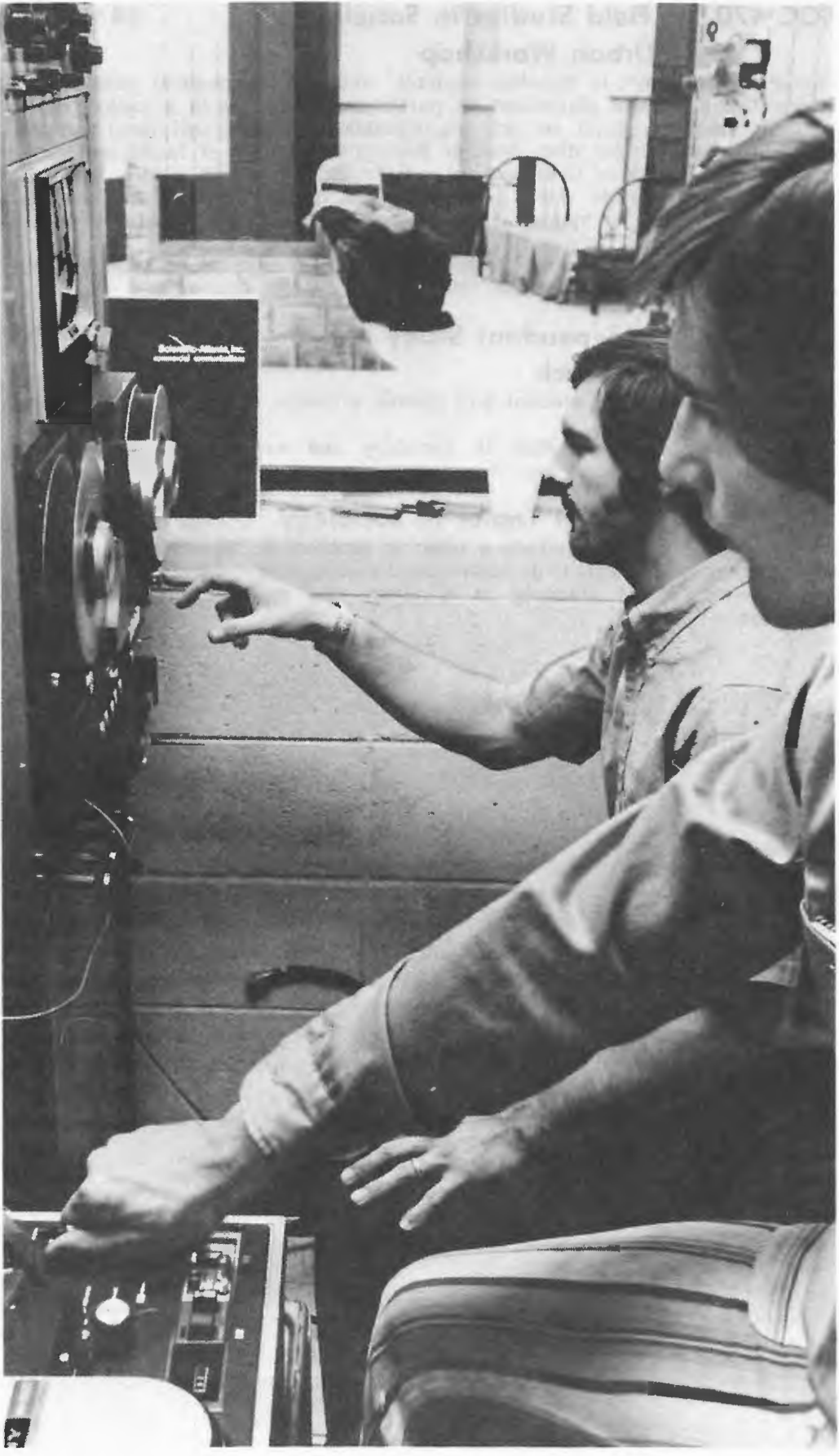
A tutorial in which the student will pursue a course of reading and research with the instructor.

Prerequisites: Major standing in sociology and written permission of the instructor.

SOC 490 Special Topics in Sociology (2 or 4 credits)

An advanced seminar in which a topic or problem is studied in depth. Each seminar requires students to do independent reading and writing.

Prerequisites: Major standing in sociology and written permission of the instructor.



DEPARTMENT OF SPEECH COMMUNICATION

CHAIRMAN: ADELINE HIRSCHFELD-MEDALIA

PROFESSOR: Donald C. Hildum

ASSOCIATE PROFESSOR: Adeline Hirschfeld-Medalia

ASSOCIATED FACULTY:

Professors: Maurice F. Brown (English); Richard J. Burke (Philosophy)

Assistant Professors: William E. Bezdek (Sociology); David Saint-Amour (French)

Instructor: Edward J. Slawski (Sociology)

Visiting Lecturers: Thomas A. Aston (Student Life); William W. Connellan (Office, President); Jerry L. Dahlmann (Academy of Dramatic Art); David Robert Kanter (Meadow Brook Theatre); Elizabeth Orion (ADA); Fred D. Thompson (ADA); Richard White (Audio Visual)

The Department of Speech Communication offers programs of study leading to the degree of Bachelor of Arts with the opportunity to concentrate in several areas. Courses are available in public and interpersonal communication, rhetoric, voice and articulation, group and organizational communication, theatre, oral interpretation and readers theatre, mass media analysis and production, journalism, and speech education. The various programs offered by this department are described below.

The Department of Speech Communication stands ready to serve the non-speech major, the general Oakland University student, as well. Communication training can enhance almost any career, and certainly life in general. Though there are many specific careers open to students with speech communication knowledge and abilities, it is important to remember that the student with a solid liberal arts background and a demonstrable ability to communicate well will fit comfortably into many job entities.

Requirements for the Liberal Arts Major in Speech Communication

The major in speech communication consists of seven courses (28 credits) in SCN (or crosslisted) courses, and three courses (12 credits) in cognate areas. The seven SCN courses must include either 201 or 305, 303, and one 400 level course. To insure that every major includes the study of both small-group, face-to-face communication and large audience or large-system communication, we have classified most of our courses under one of those headings and ask that each major include at least two courses from each.

Requirements for a Teaching Minor in Speech Communication

With this minor, secondary education graduates will be prepared to teach speech communication courses and direct speech activities such as theatre and forensics. Such background is an invaluable aid to all teachers, especially in the new elective curricula of today's high schools.

Education courses: 24 hours including ED 244, 245, 428 Teaching of the Major Field, ED 455 Internship (8 or 12 hours). Also included in the education package might be SCN 321 Speech Communication for the Secondary Teacher, SCN 272 Media Hardware: Educational and Creative, and SCN 420/ED 590 Extemporaction and Theatre Games.

The major subject may be English, Language Arts (proposed), or Social Studies, though not necessarily limited to these three choices. Required for the Minor in Speech Communication are 20 or 24 hours which must include either SCN 201 or 305, and SCN 230 or proven competency in voice and articulation. A table of recommended clusters of courses for various teaching combinations is available in the Speech Communication office.

CONCENTRATIONS IN SPEECH COMMUNICATION **Requirements for A Concentration in Journalism**

The concentration in journalism is designed to provide students with a broad liberal education and the necessary vocational skills to begin a career in journalism. A student may earn a concentration in journalism by successfully completing 20 hours of journalism courses, including News Writing (SCN 276). In addition, a student must complete a regular major in another discipline and fulfill university general education requirements. A student may not earn a concentration

in journalism and a major in speech communication. However, journalism courses are applicable to a speech communication major.

The following courses are applicable to a journalism concentration:

SCN 276, 277, 278, 279, 371, 376, 377, 378, 379, 380, 475, and 476.

An advisory committee on journalism is available for advising students on their programs and career aspirations. Contact the department office for details.

Requirements for a Concentration in Theatre Arts

In concentrating in Theatre Arts the student may choose from one of three possible emphases:

1. **Emphasis in Literature for the Theatre.** A program designed for students who wish to construct a core of studies allowing them maximum opportunities for learning about drama and theatre. The concentration permits students to develop a more enriched background for enjoying and understanding both past and present dramatic narrative. Those students who wish to take the concentration while obtaining a teaching certificate should consult with their departmental adviser.
2. **Emphasis in Dramatic Performance and Direction.** A program designed to focus students in community, recreational, educational, or pre-professional theatre with the emphasis on performing or direction.
3. **Emphasis in Production: Technical Aspects.** A program designed to focus students into community, recreational, educational, and pre-professional theatre with emphasis on design and technical aspects.

Courses, drawn from a variety of university departments in addition to the Speech Communication Department, are supplemented with internships and practice in the Student Enterprise Theatre and Meadow Brook Theatre.

Where the concentration falls within a Speech Communication major, two courses are required, UC 045 and SCN 303. Details of specific course recommendations are available in the department office.

CONCENTRATIONS IN SPEECH COMMUNICATION WITH MODIFIED MAJORS

Students may concentrate in SCN with modified majors in Linguistics, Political Science, Psychology, and Sociology.

Major in Linguistics with a Concentration in Speech Communication

The Speech Communication concentration for the Linguistics major requires:

- (a) six courses (24 credits) in linguistics including
LIN 301 Linguistic Structures
Any two of,
LIN 260 Bilingualistics
LIN 277 Sound Patterns of American English
LIN 335 Psycholinguistics

Any two of,
LIN 401 Phonetics
LIN 404 Grammatical Analysis
LIN 407 Semantic Theory
One elective
- (b) Five courses (20 credits) in Speech Communication including
SCN 201
SCN 303 highly recommended

Major in Political Science with a Concentration in Speech Communication

The Speech Communication concentration for the Political Science major requires:

- (a) Six courses (24 credits) in Political Science
- (b) Four courses (16 credits) in Speech Communication

With this combination students can prepare for government service, pre-law, politics, and careers in the media.

Major in Psychology with a Concentration in Speech Communication

The Speech Communication concentration for the Psychology major requires:

- (a) Six courses (24 credits) in psychology, including
PSY 146 Foundations of Contemporary Psychology
UC 54 Introduction to Social Psychology

Any two of:
PSY 320 Theories of Personality
PSY 350 Motivation
PSY 351 Learning, Memory, Thinking
PSY 352 Sensation and Perception

Either:

PSY 335 Psycholinguistics

PSY 435 Psychology of Communication

- (b) Four courses (16 credits) in Speech Communication, including:
 SCN 201

This curriculum provides preparation for careers in the helping professions, particularly where one-to-one and small group work is required.

Major in Sociology with a Concentration in Speech Communication

The Speech Communication concentration for the Sociology major requires:

- (a) Six courses (24 credits) in Sociology including:
 UC 058 Introduction to Sociology
 AN 410 Ethology, which may be substituted for one course in Sociology
- (b) Four courses (16 credits) in Speech Communication, including:
 SCN 201 Effective Speech Communication
 SCN 371 Forms and Effects of Mass Communication

With this combination, students are prepared for a wide range of career possibilities in community service occupations, urban communications, and social studies teaching.

Speech Communication and the General Education Distribution Requirement

All Speech Communication (SCN) courses satisfy the General Education Distribution Requirement within the Social Science field group with the exception of SCN 310 crosslisted with PHL 365, Philosophy of Rhetoric, which falls within the Letters group and those specified SCN courses on Theatre which fall within the Arts group.

SCN 121 Speech Laboratory (1 credit)

Improvement of oral or speech skills in the context of the total linguistic experience, including reading, writing, and listening comprehension, with emphasis on oral composition, vocabulary, grammar, pronunciation, and articulation. Activities designed to meet individual needs. May be taken for three semesters of credit.

SCN 161 Fundamentals of Acting (4 credits)

An introduction to the basic theories of acting techniques ranging from improvisation to Stanislavski with emphasis geared towards onstage performance. Slight connections to historical linkage in styles and their outgrowth from their specific cultures will be made. The student will partake in one major production.

SCN 162 Advanced Acting (4 credits)

An in-depth exploration into the basic material covered in SCN 161 with each student performing in a major production and providing a research paper on a given acting style.

Prerequisite: SCN 161.

SCN 200 Topics in Speech Communication (4 credits)

Topics and problems selected by the instructor, an opportunity for personnel in other disciplines to offer courses in specialized interest or on topics of current relevance.

SCN 201 Effective Speech Communication (4 credits)

Theory and practice in communication with emphasis on the adaptations required by particular goals, audiences and occasions. Through the researching, organizing, writing, and delivery of classroom and extraclassroom communications, students are prepared for a variety of communicative situations and needs. Videotaped student speeches and classroom interaction aid in identifying, and thereby correcting or enhancing, individual personality and delivery characteristics.

SCN 202 Group Dynamics and Communication (4 credits)

Group dynamics, discussion, problem solving; influence of group structure, norms, roles, leadership, and climate on the processes of group communication and collaborative decision making.

SCN/LIN 207 Semantics (4 credits)

A study of the processes which occur when the mind makes meaningful interpretations of the signs and symbols of messages and languages.

SCN 230 Voice and Articulation (4 credits)

Theory and applications in voice, articulation and pronunciation.

SCN 250 Oral interpretation (4 credits)

Oral expression of literature — prose, poetry, and drama — based on intellectual, emotional, and aesthetic analysis.

SCN 261 Technical Laboratory (4 credits)

A general survey in the actual techniques of scenery and costume, construction and lighting, including proper usage of tools and hardware in these three areas. Twenty hours of work on a major production is required. Recommended after UC 045.

SCN 262 Technical Design Laboratory (4 credits)

A basic knowledge of drafting and rendering for stage scenery and costumes will be covered as well as the development of lighting plots. Twenty hours of work on a major production is required.

**SCN 271 Introduction to Film and
Television Production (4 credits)**

Analysis of the nature of a moving image and how it is developed in either film or television. The student will explore these phenomena using instruments necessary in the production of each technique with application in studio and/or field work.

SCN 272 Media Hardware (4 credits)

A working knowledge of the instruments used in mass media: operation, maintenance, and dealing with malfunctions. Recommended for education majors.

SCN 276 News Writing (4 credits)

Thorough training in practical aspects of reporting are the aim of this course. Methods of news gathering, interview techniques, and basic newswriting styles are included. This course is required for a concentration in journalism.

SCN 277 Feature Writing (4 credits)

Basic feature writing, criticism, reviewing, and editorial writing are offered. Prerequisite: SCN 276 or equivalent.

SCN 278 Radio-Television News (4 credits)

Although fundamentals of news reporting are similar to all media, the technology of radio and television create different demands on students interested in this form of communication. This course is the merger point between the reporting abilities and the particular format of this medium.

Prerequisite: SCN 276 or equivalent.

SCN 279 Journalism Laboratory (2 credits)

Under the supervision of an instructor, students work on campus publications. The course may be repeated once.

Prerequisite: SCN 276 or equivalent.

SCN 301 Persuasion (4 credits)

Analysis of persuasion in current society; psychological bases of persuasion; ethical considerations; and distinctions between debate and persuasive argument.

Prerequisite: SCN 201

SCN 303 Introduction to Communication Theory (4 credits)

Models of the communication process, principles of coding and translation, and sanity in communication. The use of personal and impersonal channels, and the significance of their verbal and nonverbal modes, in communicating in various forms to different ends, in situations ranging from the intra-personal to culture-wide.

**SCN 304 Oral and Written Communication (4 credits)
 in Organizations**

Communication theory and practice within the context of the organizational system of interdependent individuals and groups.

SCN 305 Interpersonal Communication (4 credits)

The elements, purposes, and patterns of interpersonal communication and the effects of these on the persons involved. Dynamics in one-to-one relationships, such as interviewing, tutoring, community service.

SCN 310/PHL 365 Philosophy of Rhetoric (4 credits)

This course will attack head-on the problem of "objectivity," examining various philosophical justifications for a distinction between persuasion and proof, between propaganda and information, etc., and the consequences of denying such a distinction. The tendency for people with certain positions to use certain types of arguments will also be explored. Readings will include Plato's *Gorgias*, Aristotle's *Rhetoric*, and several recent books and articles on reasoning and communication.

**SCN 311 Rhetorical Analysis and
 Speech Composition (4 credits)**

Principles and methods of oral composition, emphasizing the content, arrangement, and style of public address with application in the construction and delivery of public speeches.

Prerequisite: SCN 201.

**SCN 376-377-378-379 Layout, Editing, (2 credits each)
Photography, and Media Management**

These courses are taught sequentially during the year and are intended for the student who will enter the print media at a level where detailed knowledge of many facets of journalism production are needed. Students need not take all four courses. Prerequisites: SCN 276 or equivalent.

SCN 402/SOC 402 Small Groups (2 credits)

Focuses on small group relations as a microsocial system, as the interpersonal locus for personality development, and as the continuing expression of microsocial processes. (Recommended for anyone interested in the systematic analysis of small group relations).

Prerequisite: UC 058 or permission of the instructor.

SCN 403 Communicative Networks (4 credits)

The patterns of contact and information transfer in human groups, ranging from the sociometric patterns of small groups to the formal and informal networks of organizations, to the large scale exchanges of mass societies, all in connection with basic social relationships. We will consider also the interaction of these networks with their typical media and contents, and the combined effects of networks and contents on their users. Prerequisite: SCN 303

**SCN 420/ED 590 Extemporacion and (4 credits)
Theatre Games**

Group interaction experiences such as improvisation, simulation, roleplaying, sociodrama, creative dramatics, story and readers theatre, and educational games. These activities can be used for a variety of goals, including group leadership, teaching, and theatre performance.

SCN 430/LIN 401 Speech Science (4 credits)

The physical aspects of speech symbols, their production and reception.

**SCN 460 Theatre Production for School and (4 credits)
Community**

Theatre production coordination, including such aspects as choice of scripts, casting, direction, staging, lighting, costuming, box office, and publicity.

**SCN 462 Direction Practicum for the (4 credits)
Stage, Film, Television**

An exploration into the different methods of direction necessary in each of the three media. Scenarios will be developed utilizing students from SCN 161. Prerequisites: SCN 161, 261, 271.

**SCN 471 Workshop in Contemporary (4 credits)
Communications**

A course providing a bridge between academic learning and professional applications in speech communication forms and media. Included within the practicum-seminar format of the workshop will be fieldwork, observation, and lecture-demonstrations with selected professionals in and from a variety of job settings.

SCN 475 Special Topics in Journalism (4 credits)

Various specialties are offered to students with subject changing from semester to semester.

Prerequisite: SCN 276 or equivalent.

SCN 476 Journalism Internship (8 or 12 credits)

A full-time internship with a newspaper, radio, or television station for a semester is available for exceptional students. Course is limited by availability of positions. Prerequisites: SCN 276 or equivalent and permission of the department.

SCN 480 Special Topics Seminar (4 credits)

Group study of topics of special interest chosen by departmental faculty and students. May be repeated for credit with instructor's permission. Prerequisites: Three SCN courses, or permission of instructor.

SCN 490 Independent Study (2,4, or 8 credits)

Special research projects in speech communication.
Prerequisite: Permission of the instructor.



INTERDEPARTMENTAL PROGRAMS AND COURSES

THE AREA STUDIES PROGRAM

**CHAIRMAN: ROBERT C. HOWES (HISTORY-
RUSSIA)**

Carlo Coppola (Modern Languages—South Asia); Edward J. Heubel (Political Science—Latin America); Harold G. Lawrence (History—Africa) on leave Fall 1973; James R. Ozinga (Political Science—Russia); Amitendranath Tagore (Modern Languages); S. Bernard Thomas (History-China)

The area studies program is dedicated to the understanding of living civilizations whose various aspects — language, history, government, social organization, literature, and so on — form the basis of studies primarily within the traditional departments. A concentration in area studies might be considered by any student who seeks an integrated view of a civilization out of intellectual curiosity as well as by the student who looks forward to a career in government service or journalism, to foreign residence or work, or to graduate study with an area emphasis. At present, Oakland University offers area programs in East Asian studies (China and Japan), South Asian studies (India and Pakistan), Slavic studies (Russia and Eastern Europe), and Latin American studies. A similar program in African studies may be pursued as an independent concentration. For descriptions of introductory area studies courses see p. 56).

Area concentrations are available on a joint basis with a department and consist of a modified departmental major combined with a concentration in area studies, including work in the language of the area. Concentrations are now offered in combinations with the Departments of Art, History, Modern Languages and Literatures, Philosophy, Political Science, and Sociology and Anthropology. Appropriateness in combining an area specialization and a department, and the suitability of specific course requirements for a joint degree, depend in large measure upon the interest and the career plans of each student.

I. PROGRAMS OFFERED BY THE LANGUAGE AND AREA CENTER FOR EAST ASIA

FACULTY OF THE CENTER: ROBERT C. HOWES, DIRECTOR; Sheldon L. Appleton (Political Science); Ralph F. Glenn (Art History); Janet A. Krompart (East Asian Librarian); Robert J. Krompart (History); John Marney (Chinese Language and Literature); Paul M. Michaud (History); Shih-Chen Peng (Chinese Language and Literature); John E. Rue (Political Science); I. Michael Solomon (History); Amitendranath Tagore (Chinese Language and Literature); S. Bernard Thomas (History).

(The East Asia program is offered by Oakland University's Language and Area Center for East Asia, established in 1965 with the support of a grant from the U.S. Office of Education.)

Course Offerings

(For detailed course descriptions, see entries under individual departments.)

Chinese Language and Literature courses
(See Modern Languages and Literatures.)

AH 300	Oriental Art
AH 301	Japanese Art
AH 302	Buddhist Art
AH 400	Chinese Art
AH 401	Japanese Painting
AH 402	Asian Ceramics
HST 277	Japan to 1800
HST 278	Japan since 1800
HST 370	China: Beginnings to Mid-T'ang, ca. 750
HST 371	China: Mid-T'ang to the Peak of Manchu Power, ca. 1800
HST 373	Nineteenth Century China
HST 374	Nationalism and Communism in China
HST 375	Topics in Chinese Intellectual History
PHL 250	Philosophies and Religions of Asia
PHL 351	Chinese Philosophy
PS 338	Modern Chinese Politics
PS 339	Sino-Soviet Relations
AS 300	Special Topics in Area Studies

- AS 381 Seminar in East Asian Studies
 AS 390 Directed Readings in Area Studies
 AS 490 Directed Research in Area Studies
 (See p. 239 for descriptions of AS 300, 382, 390, and 490.)

Program Options and Requirements

Admission to the following programs in East Asian studies requires successful completion of AS 062 or AS 063, two semesters (10 credits) of Chinese and major standing within a cooperating department. Interested students should consult with the director of the East Asia Center as early in their college careers as possible.

Major in Chinese Language and Civilization

The requirement for this major is eight courses (36 credits) ordinarily CHE 114-115, 214-215, and four other courses in Chinese selected in consultation with an adviser. Five area courses (20 credits), selected from the above list and including AS 490, are also required.

The Concentration in East Asian Studies

The concentration is offered in combination with a modified departmental major in anthropology, history, political science, philosophy, or sociology. The requirements are: six courses (24 credits) in the major department, two years (20 credits) of Chinese language, and five additional area courses (20 credits) from the above list, including AS 490.

II. THE SOUTH ASIAN STUDIES PROGRAM

FACULTY: Carlo Coppola (Modern Languages), Coordinator; Peter J. Bertocci (Sociology and Anthropology); Richard W. Brooks (Philosophy); Ralph F. Glenn (Art History); Susan Hadden (Political Science); Bruce Harker (Education); John Hurd, II (Economics); Paul M. Michaud (History); Munibur Rahman (Modern Languages); Amitendranath Tagore (Modern Languages); Richard P. Tucker (History)

Course Offerings

(For detailed course descriptions, see entries under individual departments.)

Hindi-Urdu Language and Literature courses
 (See Modern Languages and Literatures.)

(In special cases Sanskrit or Bengali may constitute an alternative to Hindi-Urdu, with consent of the coordinator of South Asian studies.)

- AH 300 Oriental Art
- AH 302 Buddhist Art
- AH 403 Asian Ceramics
- AN 361 Contemporary South Asian Society
- ECN 223 The Indian Economy
- HST 280 History of Southeast Asia
- HST 282 Introduction to the History of India
- HST 381 History of Early India
- HST 382 The Muslim Tradition in India and Pakistan
- HST 383 British Imperialism and Hindu Nationalism in India, 1740-1947
- PHL 250 Philosophies and Religions of Asia
- PHL 352 Indian Philosophy
- PS 334 Political Systems of Southern Asia
- SOC 300 Social Stratification in Cross-Cultural Perspective
- AS 300 Special Topics in Area Studies
- AS 382 Seminar in South Asian Studies
- AS 390 Directed Readings in Area Studies
- AS 490 Directed Research in Area Studies

(See p. 239 for descriptions of AS 300, 381, 390, and 490.)

The Concentration in South Asian Studies

The concentration is offered in combination with a modified departmental major in anthropology, history, political science, philosophy, or sociology. The requirements are: six courses (24 credits) in the major department, two years (20 credits) of an Indian language, and five additional area courses (20 credits) from the above list, including AS 490.

Formal admission to the concentration requires completion of AS 066, two semesters (10 credits) of an Indian language, and major standing within a cooperating department. Interested students should consult with the coordinator of South Asian studies as early in their college careers as possible.

III. THE SLAVIC STUDIES PROGRAM

FACULTY COORDINATOR: JAMES R. OZINGA (POLITICAL SCIENCE); Lee M. Corrigan (Russian Language and Literature); Jerry M. Freeman (Russian Language and Literature); Alice Gorlin (Economics); Robert C. Howes (History); Dmytro Ijewliw (Russian Language and Literature); Helen Kovach (Russian Language and Literature); Lawrence D. Orton (History)

Course Offerings

(For detailed course descriptions, see entries under individual departments.)

Russian Language and Literature Courses

(See Modern Languages and Literatures.)

AH 320	Byzantine Art
HST 251,252	Introduction to Russian History
HST 254	Eastern European History
HST 352	Kiev and Muscovy
HST 353	Imperial Russia
HST 354	Soviet Russia
HST 359	Russian Intellectual History to Peter the Great
HST 360	Russian Intellectual History since Peter the Great
PS 277	Communism
PS 337	The Soviet Political System
PS 339	Sino-Soviet Relations
AS 300	Special Topics in Area Studies
AS 383	Seminar in Slavic Studies
AS 386	Slavic Folk Studies (2 credits)
AS 390	Directed Readings in Area Studies
AS 490	Directed Research in Area Studies

(See p. 239 for descriptions of AS 300, 383, 386, 390, and 490.)

Program Options and Requirements

Admission to the following programs in Slavic studies requires complete of AS 070, two semesters (8)10 credits) of Russian, and major standing within a cooperating department. Interested students should consult with the coordinator of the Slavic studies program as early in their college careers as possible.

Major in Russian Language and Civilization

The requirement for this major is eight courses (36 credits) in Russian, ordinarily RUS 114-115, 214-215, and four other courses in Russian selected in consultation with an adviser. Five area courses (20 credits) selected from the above list and including AS 490 are also required.

The Concentration in Slavic Studies

The concentration is offered in combination with a modified departmental major in anthropology, history, political science, philosophy, or sociology. The requirements are:

six courses (24 credits) in the major department, two years (16-20 credits) of Russian language, and five additional area courses (20 credits) from the above list, including HST 251 or 252, PS 337, and AS 490.

IV. THE LATIN AMERICAN STUDIES PROGRAM

FACULTY: Edward J. Heubel (Political Science), Co-ordinator; William C. Bryant (Spanish); James W. Dow (Anthropology); Mary C. Karasch (History); Richard A. Mazzara (French, Portuguese); Kathryn McArdle (Spanish); Mariano Pallarés (Spanish, Portuguese); Colin A. Palmer (History)

Course Offerings

(For detailed course descriptions, see entries under individual departments.)

Spanish and Portuguese Language and Literature Courses

(See Modern Languages and Literatures.)

AH 204	Pre-Columbian and American Indian Art
AN 371	Cultures of Mesoamerica
AN 372	Indians of South America
HST 261,262	Introduction to Latin American History
HST 363	History of Southern South America
HST 365	The Response to European Colonialism
HST 366	Slavery and Race Relations in the New World
HST 367	Pre-Columbian and Colonial Mexico
PS 335	Politics of Latin America
PS 336	U.S.-Latin American Relations
SPN 286	Latin American Literature (in translation)
SPN 462	Spanish American Literature I
SPN 463	Spanish American Literature II
POR 290	Independent Reading and Research (in translation)
AS 300	Special Topics in Area Studies
AS 368	Summer Program in Mexican Studies
AS 385	Seminar in Latin American Studies
AS 390	Directed Readings in Area Studies
AS 490	Directed Research in Area Studies

(See p. 239 for descriptions of AS 300, 368, 385, 390, and 490.)

Major in Latin American Languages and Civilization

The requirement in Spanish for this major is a minimum of six courses (24 credits) beyond SPN 214-215 selected from departmental offerings in consultation with an adviser. Five additional courses (20 credits) selected from several departments as represented in the above list and including AS 490 are also required.

An alternative language requirement for this major is four courses (16 credits) in Spanish beyond SPN 214-215, and three courses (15 credits) in Portuguese language and literature. Other combinations of languages used in Latin America, such as French, (with Spanish), will be considered.

The Concentration in Latin American Studies

The concentration is offered in combination with a modified departmental major in anthropology, history, political science, philosophy, or sociology. The requirements are: six courses (24 credits) in the major department, two years (16-20 credits) of Spanish language, AS 068, and five additional area courses (20 credits) from the above list, including AS 490.

V. INTERDEPARTMENTAL COURSES OFFERED TOWARD THE AREA CONCENTRATIONS

AS 300 Special Topics in Area Studies (4 credits)

Interdisciplinary study of a foreign area, or a particular aspect of a foreign area, for which no regular course offerings exist. May be repeated once for a total of 8 credits.

AS 368 Summer Program in Mexican Studies (At Guadalajara) (8 credits)

Oakland faculty cooperate with Mexican faculty to present a set of summer courses focusing on Mexican culture: history, art, political and social problems, folk arts, archaeology, Chicano Studies, intensive language and Mexican literature. Approach emphasizes comparisons with U.S. culture and field work. Courses conducted in both Spanish and English. May be repeated once for additional credits with the consent of the coordinator of Latin American studies.

AS 381 Seminar in East Asian Studies (4 credits)

Offered to supplement departmental area courses. An intensive study of selected topics dealing with East Asia. May be taken more than once. Prerequisite: Permission of the Instructor

AS 382 Seminar in South Asian Studies (4 credits)

Offered to supplement departmental area courses. An intensive study of selected topics dealing with South Asia. May be taken more than once.

Prerequisite: Permission of the Instructor.

AS 383 Seminar in Slavic Studies (4 credits)

Offered to supplement departmental area courses. An intensive study of selected topics dealing with the Slavic area. May be taken more than once.

Prerequisite: Permission of the Instructor.

AS 384 Seminar in African Studies (4 credits)

Offered to supplement departmental area courses. An intensive study of selected topics dealing with Africa. May be taken more than once.

Prerequisite: Permission of the Instructor.

AS 385 Seminar in Latin American Studies (4 credits)

Offered to supplement departmental area courses. An intensive study of selected topics dealing with Latin America. May be taken more than once.

Prerequisite: Permission of the Instructor.

AS 386 Slavic Folk Studies (2 credits)

An intensive survey of the traditional music, songs, dances, and costumes of selected Slavic cultures. Includes participation in the Slavic Folk Ensemble. May be repeated once for a total of 4 credits.

**AS 390 Directed Readings (2, 4, 6, or 8 credits)
in Area Studies**

Readings from diverse disciplines with focus on a student's area of specialization. Conducted on a tutorial basis by an instructor chosen by the student. Requires approval of the chairman of the Committee on Area Studies prior to registration.

Prerequisites: Permission of the Department and the Instructor.

**AS 490 Directed Research (2, 4, 6, or 8 credits)
in Area Studies**

Research relating to the student's area of specialization including completion of a senior essay or research paper. May be offered as a seminar or as a tutorial. Supervised by an instructor from the area studies staff. Approval of the instructor and of the chairman of the Committee on Area Studies are required prior to registration.

Prerequisites: Senior standing, admission to an area concentration, and permission of the Department and the Instructor.

THE HEALTH SCIENCES PROGRAMS

COMMITTEE ON HEALTH SCIENCES PROFESSIONS: MOON J. PAK, CHAIRMAN

Boaz Kahana (Psychology); Abraham R. Liboff (Physics-Medical Physics); Moon J. Pak (Biological Sciences); John R. Reddan (Biological Sciences-Medical Technology); Paul Tomboulia (Chemistry-Environmental Health Technology)

Oakland University offers three interdepartmental major programs leading to a B.S. degree in the health sciences. These are: Environmental Health Technology, Medical Physics and Medical Technology. These majors are among a number of health-related baccalaureate programs keyed to state and national needs. Programs currently under consideration to be implemented in the future include: Biomedical Engineering, Nursing, Physician's Assistant, and others. These majors differ from some other undergraduate major programs in the College of Arts and Sciences in that the graduates in Health Sciences have clear and definite career orientations. Hence, some aspects of these programs such as total credit requirements, general education requirements, and off-campus practicum experience are at variance with the general practices in the College of Arts and Sciences. To meet requirements for certification and licensing, the programs follow guidelines set by external agencies. On-the-job and clinical training is provided to make students employable in specific health fields.

I. ENVIRONMENTAL HEALTH TECHNOLOGY PROGRAM

PROGRAM DIRECTOR: PAUL TOMBOULIAN (CHEMISTRY)

The program prepares students as environmental specialists for professional career opportunities existing in both government and industry. Successful graduates of the program should be able to identify and offer technical solutions to environmental problems in the areas of water resources, air resources, food resources, radiation, and general sanitation.

The multi-dimensional nature of the discipline requires students with a broad scientific inclination and with a bias toward public service. A total of 128 credits is required for the B.S. in health science with a major in Environmental Health Technology, of which 24 credits are in the general

education category. Major course work is required in Biology, Chemistry, Physics, Mathematics, Environmental Studies, and includes 16 credits in field work. Interested students must consult with the program director to obtain specific information on the required courses and to receive counseling.

1. General Education (24 credits):

- a) Up to 8 credits in English Composition may be presented as part of the 24 credits in General Education.
- b) The student must complete at least four credits in three of the four designated field groups, and at least eight credits in one of the field groups. The field groups are Arts, Letters, Social Science, and Area Studies.

2. Major course work may include:

BIO 111, 112, 113, 114, 221, 222
CHM 114, 115, 117, 118, 203, 206
PHY 101, 102, 106, 107, 158
MTH 154, 155
ENV 151, 181, 182, 212, 372, 373

II. MEDICAL PHYSICS PROGRAM

**PROGRAM DIRECTOR: ABRAHAM R. LIBOFF
(PHYSICS)**

Medical physics is a relatively new health-related professional program, which is concerned with the use of physical techniques in the diagnosis and treatment of disease. In the past the subject was most closely associated with radiation therapy in the development of which it played a vital part. Today it also includes the physical aspects of X-ray diagnosis, nuclear medicine, radiation safety, ultrasonics, lasers, thermography, image intensification, EKG and EEG. It is also involved in related areas such as patient monitoring, and general medical instrumentation. In addition to clinical duties surrounding these techniques, medical physicists are engaged in research and development, consultation and service, and teaching of residents, hospital personnel and undergraduates. Most of the progress made in the last decade in both diagnosing and in treating cancer can be directly traced to the increasing use of physics in medicine.

A total of 128 credits is required for the B.S. in health science with a major in Medical Physics, of which 24 credits are in the general education category. A core of physics courses is required around which relevant biology, chemistry, and mathematics courses are added. During the fourth year, students take part in an internship at a local hospital and, along with hospital residents, take courses in such areas as physics, radiology, nuclear medicine, and medical instrumen-

tation. Interested students must consult with the program director to obtain specific information on the required courses and to receive counselling.

1. General Education (24 credits):

- a) Up to 8 credits in English Composition may be presented as part of the 24 credits in General Education.
- b) The student must complete at least four credits in three of the four designated field groups, and at least eight credits in one of the field groups. The field groups are Arts, Letters, Social Science, and Area Studies.

2. Major course work may include:

BIO 111, 112, 113, 114, 221, 222
CHM 114, 115, 117, 118, 203, 217, 305
MTH 154, 155, 254, 255
PHY 150, 151, 152, 158, 317, 318, 331, 371, 381
CIS 180

III. MEDICAL TECHNOLOGY PROGRAM

PROGRAM DIRECTOR: JOHN R. REDDAN (BIOLOGICAL SCIENCES)

The program prepares students for highly professional health career opportunities in clinical pathology laboratories in hospitals. Medical technologists work under the supervision of a pathologist and are primarily responsible for the operation of the laboratory, performing a wide variety of tests on which physicians base their diagnosis of a disease and formulate therapeutic plans. They also direct the work of medical laboratory technicians and laboratory assistants whose scope of training is much less extensive.

Medical technology students take a three-year academic program at Oakland based on the educational guidelines set forth by the Council on Medical Education of the American Medical Association; the fourth year is spent in an affiliated and approved Hospital School of Medical Technology. This is followed by the national certification examination to become a registered medical technologist and the eligibility for the bachelor's degree from the University. It should be pointed out that the completion of the medical technology program is contingent upon the student's successful admission to one of the Hospital Schools of Medical Technology affiliated with the University.

A total of 128 credits is required for the B.S. in health science with a major in medical technology, of which 24 credits are in the general education category and 26 credits are earned

the fourth-year hospital training. Interested students must consult with the program director to obtain specific information on the required courses and to receive counselling.

1. General Education (24 credits):

- a) Up to 8 credits in English Composition may be presented as part of the 24 credits in General Education.
- b) The student must complete at least four credits in three of the four designated field groups, and at least eight credits in one of the field groups. The field groups are Arts, Letters, Social Science, and Area Studies.

2. Major course work may include:

BIO 111, 112, 113, 114, 221, 223, 224, 407, 408
CHM 104, 105, 107, 108, 203, 204, 206, 207
MTH 121
PHY 101, 102, 158

CONCENTRATION IN COMPUTER AND INFORMATION SCIENCE

CHAIRMAN: DAVID E. BODDY (ENGINEERING)

In addition to usage in the natural sciences, business, and engineering, the digital computer now finds wide application in the social sciences, arts and letters, and education. The main objective of the Computer and Information Science Concentration is to provide an opportunity for students in the natural sciences, economics and management, education, the social sciences, arts and letters and engineering to add preparation in the area of computers to their major field of study. The student, in consultation with the Concentration Committee, would shape the Concentration to fit his or her needs. The background achieved in this way would allow students to develop computer applications for problems in their area of specialization, thereby preparing them for research in their major field of study, for positions in industry and government, and for further academic work.

It is intended that the Concentration be broadly interdisciplinary in outlook such that students from a wide variety of majors may choose meaningful programs within the Concentration. For example, with a major in mathematics, physics, chemistry, biology or engineering, a student may wish to emphasize numerical and scientific computing aspects of Computer and Information Science. With a major in English, modern languages, linguistics, psychology, sociology, anthropology or history, a student may wish to take courses in the Concentration that emphasize non-numerical and symbolic data

advantages and disadvantages. Problems of energy conversion in the immediate future.

ENV 305 Selected Topics (2, 4, 6, or 8 credits)

Studies in special areas, often individually arranged. May be repeated for credit. Preparation of study plan and approval of the instructor listed is required prior to registration.

ENV 372 Air Chemistry (4 credits)

A technical evaluation of the nature and composition of the earth's atmosphere, both in its natural state and as it has been affected by man. Some discussion of air pollution control will be included. Identical with CHM 372.

Prerequisite: CHM 203 and 305, or equivalent.

ENV 373 Aquatic Chemistry (4 credits)

A technical introduction to the nature and composition of all types and bodies of water, including streams, rivers, lakes, and oceans. Some discussion of water pollution control will be included. Identical with CHM 373.

Prerequisite: CHM 203 and 305, or equivalent.

CONCENTRATION IN HEALTH-MEDICAL BEHAVIORAL SCIENCES

CHAIRMAN: CARL VANN (BEHAVIORAL SCIENCES AND POLITICAL SCIENCE)

Course work and practica in the behavioral sciences as they relate to the fields of health and medicine. This concentration is particularly relevant for students in preprofessional programs. See the entries under Allport College, (p. 350).

CONCENTRATION IN JOURNALISM

CHAIRMAN: ADELINE HIRSCHFELD-MEDALIA

This concentration provides courses helpful to students interested in careers in journalism. Please see the entries under the Department of Speech Communication (p. 224).

CONCENTRATION IN JUDAIC STUDIES

CHAIRMAN: PETER G. EVARTS (ENGLISH AND LEARNING SKILLS)

For students interested in acquiring a background in Jewish cultural traditions, the University, in cooperation with the Midrasha College of Jewish Studies, provides a pattern of courses which offers an opportunity to study in some depth the literature, philosophy, history, and religion of the Jewish people. This concentration is recommended as a valuable adjunct to majors in all areas, perhaps especially pertinent to

humanities and social science majors. Interested students should see the concentration chairman for further information.

Requirements:

1. admission to the program
2. completion of 20 credits chosen from the following courses or from courses approved by the concentration chairman:

CLS/ENG/REL 211	Introduction Old Testament Literature
CLS/HST 396	Ancient Near East: World of Bible
CLS/HST 397	History of the Second Jewish Commonwealth
ENG 341	Survey American/Jewish Literature
HST 398	Jew in the Middle Ages
REL 202	The Jewish Tradition

See department entries for full description of these courses.

*The Midrasha is an undergraduate institution located in Southfield, Michigan, which specializes in Hebraic and Judaic studies. It provides intensive academic and professional training and grants both the degree of Bachelor of Hebrew Literature and the degree of Bachelor of Jewish Studies.

CONCENTRATIONS IN LINGUISTICS

CHAIRMAN: WILLIAM SCHWAB (LINGUISTICS AND ENGLISH)

Students may combine majors in Anthropology, Classics, English, Modern Languages, Philosophy, Psychology, and Sociology with formal studies in linguistics, and emphasize either theoretical or applied phases. It is possible, for example, for a foreign language major to attain a fair measure of expertise in the teaching of English as a foreign language by a judicious selection of courses offered by the Department of Linguistics. Clusters of courses such as biolinguistics and neurolinguistics may be of interest to those in the health sciences. Speech majors may wish to emphasize studies in the structure of sounds. Other students with majors not listed here are invited to discuss special programs in linguistics to suit their needs.

For more detailed information on linguistics concentrations, see pp. 125. Interested students are invited to discuss their plans with the chairman of the concentrations.

CONCENTRATION IN PREPROFESSIONAL STUDIES IN MEDICINE AND DENTISTRY

CHAIRMAN: MOON J. PAK (BIOLOGICAL SCIENCES); Robert N. Blockovich (Psychology); John R. Reddan (Biological Sciences); Robert L. Stern (Chemistry); Nalin J. Unaker (Biological Sciences)

Students intending to pursue careers in the medical, osteopathic, or dental professions are expected to complete a concentration consisting of the following series of courses:

- (a) Biology: 15 credits, including laboratories.
- (b) Chemistry: 20 credits, including laboratories.
- (c) Mathematics: 8 credits.
- (d) Physics: 10 credits, including laboratories.

This represents the minimum requirements for admission to the the various medical, osteopathic and dental schools in Michigan and elsewhere. This concentration does not constitute a major. Students must elect a major from among those offered by the university. Interested students must consult the advisory committee so as to receive counselling and assistance in planning their academic programs.

CONCENTRATION IN RELIGIOUS STUDIES

CHAIRMAN: RICHARD J. BURKE (PHILOSOPHY)

The Religious Studies Program offers a series of courses on religion, both Western and Eastern, both traditional and contemporary. These courses do not seek to confirm or attack any particular religious point of view; they are taught in the same scholarly and objective spirit as the other courses in the University, and aim at understanding a pervasive human phenomenon. They are grouped into two types of courses: historical studies and systematic studies (see below). 200-level courses require sophomore standing (28 or more credits); 300-level courses require this also, plus one previous course in Religious Studies at Oakland.

At present, the Program offers a Concentration in Religious Studies, consisting of at least 20 credits in Religion, which must be taken jointly with a modified major (24 credits) in either Philosophy or Sociology-Anthropology. It is expected that several other combinations will be available soon, and that Religious Studies will become a Department offering a full major in two or three years. In the meantime, students

wishing to make Religion the focus of an Independent Concentration will receive the support of the Committee on Religious Studies. Interested students should see the Concentration Chairman for further information.

Policy regarding transfer credits

Credit will generally be given for courses taken in accredited colleges when the content of those courses is demonstrably similar to the content of a course offered in the Religious Studies Program of Oakland University. Credit will generally not be given for courses taken at an unaccredited institution or for courses with a content for which Oakland University has no reasonable substitute. The content, not simply the title, of the course must be described by a student seeking transfer of credits.

Historical Studies:

REL 200 Topics in the Historical Study of Religion

The topic varies. Sample topics include: The New Testament, Medieval Mysticism, Early Buddhism, The Protestant Reformation, Christ and Caesar, 18th and 19th Century Attacks on Religion. May be repeated for credit.

REL 201 Religions of the Ancient World

Myths, rituals, and religious ideas in the ancient Near East, Greece, and Rome. Offered every two years.

REL 202 The Jewish Tradition

Selected ideas and institutions in the development of Judaism from its pre-exilic roots to the present. Identical with PHL 202. Offered every two years.

REL 203 The Christian Tradition

Study of the most important Christian ideas and institutions from Jesus to the present. Offered every two years.

REL 204 The Islamic Tradition

Selected ideas and institutions in the history of Islam. Offered every two years.

Rel 211 Old Testament Literature

A study of the types of literature found in the Old Testament. Identical with ENG 211 and CLS 211. Offered every two years.

REL 250 Philosophies and Religions of Asia

A study of the major religions of India, China, and Japan with emphasis on their philosophical significance. The course will cover Hinduism, Jainism, Confucianism, Taoism, and Buddhism (with special reference to Ch'an or Zen) and will deal with both the ancient traditions and some modern developments. Identical with PHL 250. Offered every year.

REL 295 Contemporary Religious Movements (4 credits)

Begins with a review of institutional religion in America, then surveys underground church movements, Zen, Yoga, TM, and others. Field work possible. Prerequisite: Sophomore standing.

REL 307 American Religious History (4 credits)

A study of the religious history of the American people with an emphasis on social aspects. Within the general outline of chronological development, attention is given to such selected topics as religious elements in immigration, the separation of church and state, denominationalism and sectarianism, religion and nationalism, religious leadership, and religion as an influence in social change. Offered each winter.

Prerequisite: Two courses in American history, or permission of instructor.

Systematic Studies:

REL 220 Topics in the Systematic Study of Religion

The topic varies. Sample topics include: Mythology, Psychoanalysis and Religion, Religion and Education, Types of Religious Communities, Shamanism, the Hero. May be repeated for credit.

REL 225 Philosophy of Religion

Examination of arguments for and against the existence of God, the nature of religious language, the role and structure of religious concepts, the relations between religion and philosophy. Identical with PHL 225. Offered every two years.

REL 227 Psychology of Religion

Basic data of religious experience in its relation to motivation, cognitive structure, and personality; problems of religious symbolism, verbal and nonverbal; dynamics of religious movements; growth, propagation, and preservation of orthodoxy; varieties of reform. Offered every two years.

REL 229 Religion and Literature

Study of a few masterpieces of world religious literature, such as Greek tragedy, Hindu epic, Dante, Milton, with an attempt to generalize about the use of religious themes in literature, and about literature as an expression of religious belief. Offered every two years.

REL 271 Magic, Witchcraft, and Religion

A study of man's social and personal interaction with beings, creatures, and forces who manifest powers beyond those of ordinary people. The folk beliefs of non-literate people will be given special attention; the transformation of social systems by religious movements will be investigated; and anthropological theories of magic, witchcraft, and religion will be examined as they relate to these and other topics. Identical with AN 271. Offered every two years.

REL 305 Sociology of Religion

An analysis of the changing relationship between social structure and religion. Comparative materials will be examined from pre-industrial societies, Europe during the Protestant Reformation, and the contemporary United States. Identical with SOC 305. Irregularly scheduled.

Prerequisite: SOC 100 or permission of the instructor.

REL 390 Directed Readings in the Study of Religion

Individual study of a topic not covered by regular courses, with the guidance of a faculty tutor.

Prerequisite: Consent of the tutor.

Suggested collateral courses:

CLS 312	Classical Mythology. Identical with ENG 312.
HST 325	Medieval Europe
HST 397	The Second Jewish Commonwealth. Identical with CLS 397.
PHL 205	Hellenistic and Medieval Philosophy
PHL 355	Existentialism

CONCENTRATION IN SOCIAL JUSTICE AND CORRECTIONS

CHAIRMAN: JESSE R. PITTS (SOCIOLOGY-ANTHROPOLOGY)

This concentration requires a minimum of 20 credits and is intended to be taken in conjunction with a full major in any department of the College. It will provide career-oriented education for students interested in the social forces producing delinquency and crime; in the evaluation of social planning for crime prevention and control; and in the operation of police organizations and correctional institutions.

Requirements:

1. Admission to the program.
2. Completion of a core program of 12 credits chosen from the following courses:
 - SOC 221 Sociology of Crime and Punishment
 - SOC 325 Corrective and Rehabilitative Institutions
 - SOC 327 Police and Society
 - PS 343 American Legal System: Civil Rights and Civil Liberties
3. Completion of SOC 430 - Internship in Social Justice and Corrections (4 or 8 credits)

See department entries for full description of these courses.

With permission of concentration chairman, substitutions in the core program may be made from the following list:

- PSY 220 Abnormal Psychology
- PSY 272 Psychology of Adolescence and Maturity
- PS 241 Law and Politics
- PS 342 American Legal System (The Courts)
- PHL 221 Theories of Justice, Power, and Freedom
- SOC 330 Sociology of Youth

CONCENTRATION IN SPEECH COMMUNICATION

CHAIRMAN: ADELINE HIRSCHFELD—MEDALIA

For information about concentrations in Speech Communication available in conjunction with many department majors, please see the entries under Speech Communication (p. 223).

CONCENTRATION IN THEATRE ARTS

CHAIRMAN: ADELINE HIRSCHFELD—MEDALIA

Course work and practica in three areas (theatrical literature, dramatic performance and direction, and the technical aspects of production) provide theatrical knowledge and experience valuable for students interested in careers in theatre or in teaching. See the Department of Speech Communication for program details (p. 224).

SOCIAL STUDIES PROGRAM

DIRECTOR: Robert G. Payne (Education)

Requirements for the Secondary Teaching Major
in Social Studies

This major is intended for students who plan to teach social studies in junior or senior high school and is designed to provide a broad background in the social sciences and related fields. This program is currently undergoing extensive revision. More work in a variety of social sciences, more options for major and minor concentrations, and the introduction of field service components in many courses are part of the changes now taking place. **Social Studies 100, Introduction to Social Sciences** is required as the basic course in the program. This course may be used to satisfy the general education distribution requirement in Social Science. Students interested in a social studies teaching major should consult with the Program Director so that they may plan their course work in proper sequence.

Requirements for the Teaching Minor in Social
Studies

The minor requires a minimum of 24 credits selected from courses offered by the social science departments or courses

in area studies, geography, or history and philosophy. Students majoring in history who wish to elect a social studies minor must confer with the Office of the Director of the Social Studies Program.

SS 100 Introduction to Social Sciences (4 credits)

This introductory course to an interdisciplinary program in social science provides an overview of the philosophical and historical development of individual social science disciplines (psychology, sociology, anthropology, political science, history, economics, and geography). Students examine key concepts, methods, and scholarly literature in these fields and apply their work to selected current issues through interdisciplinary models.

SS 570 Social Studies in the Elementary School (4 credits)

An intensive study of current trends, challenges, characteristics, and content of effective social studies programs, with emphasis on the relationships among discipline areas comprising the social studies. The course will stress application of these studies in urban area elementary schools.

Prerequisites: Education 245 and acceptance into a graduate or certification program or major standing in elementary education.

PRE-LAW STUDIES

ADVISOR: THOMAS W. CHURCH

There is no established "pre-law" curriculum at Oakland precisely because American law schools require no set of specific courses for admission. Students planning to attend law school after graduation should major in a field in which they have both interest and aptitude; the actual field is considerably less important for law school admission than the overall success of the student in his college training as measured by cumulative grade point average and scores on the Law School Aptitude Test administered early in the senior year. Rather than mastery of any particular subject matter, law school requires of the student certain basic skills, particularly the ability to think logically and to express one's self orally and in writing in a coherent and precise manner. No one academic discipline possesses a monopoly on these abilities. The best advice to students planning on legal careers is that they choose courses that develop abilities in analytical thinking and writing.

If there are any specific courses that might be recommended to pre-law students because of the subject matter, they would be courses which deal with the institutions and operation of American society — most especially basic courses in American politics, American history, and economics. For those students interested in general questions about law or legal techniques, from the perspective of the liberal arts and

not as a technical discipline as taught at law school, the following courses should be of some interest. It must be emphasized, however, that **none** of these courses are in any way required for, or restricted to, pre-law students:

Philosophy 221	Theories of Justice, Power, and Freedom
Political Science 241	Law and Politics
Political Science 272-273	Western Political Thought
Political Science 342-343	American Legal System
Sociology 221	Sociology of Crime and Punishment

In addition, students should benefit from an understanding of the English origins of the U.S. Law. For this purpose, History 234-235, History of England, would be appropriate.

Both the Library and the Department of Political Science maintain a collection of law school catalogs; a member of the faculty in the Department of Political Science serves as a pre-law advisor for students with specific problems. Booklets containing application forms for the Law School Aptitude Test should be obtained early in the senior year from the Career Advising and Placement office (201 Wilson Hall) or the Political Science Department office (133 Dodge Hall).

OTHER CONCENTRATIONS

For other concentrations associated with major programs please see departmental program descriptions.

OFF-CAMPUS STUDY PROGRAMS

Oakland University offers a variety of opportunities for off-campus study. They include participation in overseas study programs, the field term semester offered to students of New-Charter College, an independent study program, and a field-practicum in Health-Medical Behavioral Sciences offered by Allport College.

There have been six one-semester overseas study programs sponsored by the University in the last four years, including programs in Mexico, Hong Kong, and various areas of western Europe. No department or curriculum at Oakland requires students to study abroad at any time, nor does any department sponsor a regular agenda of overseas study programs on an ad hoc basis, the time and format of the individual projects reflecting the interests and qualifications of the faculty sponsors and the student participants. Proposals for overseas study programs are reviewed by the Committee on Overseas Study Programs, which counsels the prospective

faculty and student participants on the ways and means of maximizing the benefits of such programs; helps the faculty sponsors design proposals consistent with the general standards of the University; and helps departmental chairmen, deans, and the Provost assess the relevance, quality, and feasibility of such proposals.

A special off-campus program is part of the curriculum of New-Charter College and is open only to students of that college. This field term component, implemented in the second semester of the sophomore year, entails individually designed work-study projects.

Allport College sponsors off-campus learning programs, field-practicum work, etc. For further information see the Allport College entry, p. 350.

A third option is an off-campus independent study program open to all students in good standing who have successfully completed two semesters at Oakland University. This program allows a student to propose his or her own course of study for the semester off-campus, provided he or she has received the support and the involvement of three faculty members and the approval of the dean. The following standards and procedures apply to this program:

- (1) Any undergraduate student in good standing will be eligible to participate in the program after the completion of two semesters in residence.
- (2) A written proposal describing a course of activity will be prepared by a student applicant prior to beginning the program.
- (3) This proposal and the off-campus work it describes must receive the support and involvement of at least three members of the faculty and the approval of the dean.
- (4) All arrangements for off-campus work must be completed and filed by the end of the advising period in the semester preceding the semester of off-campus study.
- (5) It is expected that part of the preparatory work will include the designation of course equivalents totaling at least eight credits for the independent study to be accomplished. This is to be effected by negotiation with the supporting faculty members.
- (6) Whenever credit is sought toward the completion of a major, the department, through its chairman, must agree to the value of the independent work.
- (7) The Dean of Students' Office will require a release from parents absolving the University of responsibility for the

well-being of students under twenty-one years of age while they are participating in off-campus independent study.

(8) The initial approval of a program for a student will be for one semester with the provision that the student may request an extension of the program for additional semesters.

(9) The student must be registered at Oakland University and pay the required fees during the period of independent study.

A course sequence entitled CS 201-202 (Community Service) (8 credits each) represents a fourth alternative for off-campus learning. See p. 59 for course descriptions.

Both 8-credit courses are devoted primarily to volunteer service activities in Oakland, Wayne, and Macomb Counties. A regular but modified schedule of class meetings and a series of academic assignments are also required to support the experiential service-learning in the field. Students work approximately 10 to 15 hours a week in a service activity of their own interest, as approved by the instructor and the placement coordinator of the program. Placements will be made with groups, organizations, and agencies concerned with various aspects of the social, political, psychological, educational, and ecological needs and interests of the community.

The program is not intended to serve the disciplinary or vocational interests of students. Rather students will be encouraged to pursue community service activity in general, and specific placements in particular, primarily in terms of how such activities can better serve their desire to integrate reflection and action, their interest in a broad concept of general education, and their personal rather than disciplinary motivation to make a contribution to responding to community need. Students will work under the direction of a particular professor only insofar as the training and skills of a given professor are most likely to complement and thus aid the community service interests of the student.

For further information consult the Director of the Center for Community and Human Development.

Students interested in overseas study programs sponsored by other universities and organizations, both domestic and foreign, should contact the Overseas Study Information Center located in the Office of the Dean of Students. Information on work-study opportunities sponsored by institutions other than Oakland University can be obtained from the Placement Office.

MISCELLANEOUS SCIENCE COURSES

For the General Education Distribution Requirement or the Elementary Education Majors

The Teaching Minor in Science requires a minimum of 24 credits, selected from courses offered by the Departments of Biological Sciences, Chemistry, and Physics. Course selections must cover two of the three disciplines and must include 12 credits in each discipline applied to the minor. Hence the following options are available: chemistry-biology; chemistry-physics; biology-physics. All courses must be at the levels of BIO 111, CHM 104, PHY 101, or above, and they may not include courses in the discipline of the student's major.

SCI 131, 132, 133, 134 Basic Topics (1 credit each) **in Current Science**

Designed for non-science majors, these four 3½ week mini-courses deal with relevant areas of 20th century science. Graded S/N.

SCI 141-142 Basic Scientific Methods (4 credits each)

These courses, available to freshmen and sophomores, are designed for those who have little previous experience with science courses but may wish to explore the possibility of majoring in physics, chemistry or biology. Each student will be given the opportunity to develop his/her scientific skills through classroom and laboratory work. The emphasis will be on asking, and seeking answers to, scientific questions about the world of our immediate physical experience. Problem-solving skills and measurement techniques as needed for passing science-departments' courses are the objectives.

Prerequisite: One year of high school algebra recommended.

SCI 141 Techniques of problem solving, mathematical logic and quantitative calculation, and experimental observations. Basic principles of physics and chemistry applied to observed phenomena-crystals, light, gases, matter in motion.

SCI 142 Practice in scientific problem solving and experimental observations. Principles related to atoms and molecules, electrical charge, and properties of materials.

SCI 305 Science in the Elementary School (4 credits)

Content and methodology appropriate to students in the elementary education program.

Prerequisite: Major standing in elementary education.

SCI 505 Basic Concepts and New (4 credits) **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.

SCI 510 Environmental Education— (4 credits)
Seven Ponds

Begins June 14, 9:00 a.m. at Seven Ponds Nature Center. Study of basic principles of conservation and natural resources management, to understand the relationships of modern man to the natural environment. Elementary ecology is followed by studies of population, pollution, forestry, soil conservation, water utilization, and recreation. Guest speakers are professionals from government and industry involved in land-use planning and problems. For teachers and anyone concerned with environmental education; science background not necessary. Full-time, daily, for three weeks of outdoor field work, lectures, and demonstrations, plus one week of independent study. Students pay for supplies and transportation on field trips. Registration limited. Students must reserve a place in the class by application to Director, Seven Ponds Nature Center, 3854 Crawford Road, Dryden, Mich. 48428. Registration and fee payments at first class meeting.

SCI 515 Environmental Education— (2 credits)
Higgins Lake

Conducted under the auspices of the Michigan Department of Natural Resources at the Higgins Lake Conservation School. Staffed by DNR personnel and faculty members from Michigan universities. Aims to provide information and methodology for the educator on land use, water resources, types of pollution, and other aspects of the environment. Treats contemporary problems with scientific analysis in a socio-economic context. Would propel the educator into an action phase in his own community. A resident course for one week, Sunday p.m. through Friday. Available for any one of five weeks during the summer. Details available.

GRADUATE STUDIES IN THE COLLEGE OF ARTS AND SCIENCES

The following departments offer instruction leading to the degree of Master of Arts:

English
History
Mathematics
Psychology

The following departments offer instruction leading to the degree of Master of Science:

Chemistry
Physics

The following departments, jointly with the School of Education, offer instruction leading to the degree of Master of Arts in Teaching:

English
Mathematics

For further information concerning these programs, see the Graduate Bulletin.

SCHOOL OF ECONOMICS AND MANAGEMENT

OFFICE OF THE DEAN:

NORTON C. SEEBER, DEAN

ELEFThERIOS N. BOTSAS, CHAIRMAN, DEPARTMENT OF ECONOMICS

HARVEY A. SHAPIRO, ASSISTANT TO THE DEAN

PROFESSORS: Robbin R. Hough; Siddheshwar Mitt-ra (Econ.); Norton C. Seeber

ASSOCIATE PROFESSORS: Eleftherios N. Botsas; Daniel N. Braunstein; Karl N. Gregory

ASSISTANT PROFESSORS: William R. Cron; David P. Doane; Alice N. Gorlin; John Hurd II; Gadis Nowell; Lon Polk; Richard M. Reese; Richard M. Steers; John E. Tower; Kenneth C. Young

INSTRUCTORS: Douglas D. Gregory; William D. Morris; Harvey N. Shapiro

ADJUNCT PROFESSOR: Theodore O. Yntema

The School of Economics and Management offers a program in management leading to the degree of Bachelor of Science. For students with special interests, the School also offers an independent concentration leading to the degree of Bachelor of Science. (See pp. 266). The economics faculty also administers a program leading to the degree of Bachelor of Arts in the College of Arts and Sciences. Descriptions of these degree programs follow.

UNDERGRADUATE PROGRAM LEADING TO THE BACHELOR OF SCIENCE IN MANAGEMENT

The management program provides an education for management (i.e., the effective use of resources for defined objectives) rather than an education which describes the practices and institutions of business. Our program aims to develop the transferable skills which make adaptive and innovative learners, and it enables graduates to understand and manage changing situations, whether these be in profit-oriented enterprises or in private or public not-for-profit enterprises. In this program, a general education is combined with the development of analytical approaches which will enable the student to devise new answers to the increasingly complex and changing problems faced by managers and technical personnel in both private business and public organizations. Because education for management is a continuing process throughout a management career, the program seeks to give students the kind of experience that will provide the foundation for adaptability within our rapidly changing modern environment.

The management major obtains the background necessary for entering industry training programs or graduate schools of management, as well as for initial entry into many positions in business, government, and administration. The program's emphasis on analysis and analytical tools, such as the computer, opens the way to positions in many areas characterized by rapidly developing technology and expanding employment opportunities.

CURRICULUM CHANGES

As part of the continuing process of growth at Oakland University, the curriculum in management has undergone recent changes.

The curriculum described below will be effective for students entering the University in 1973-74 and after. Students enrolled prior to 1973 may, at their option, satisfy either the present or the older requirements for graduation (but they need not satisfy both sets of requirements). Further amplification of this rule and any other curriculum changes may be obtained from departmental advisers.

PROGRAM IN MANAGEMENT

The normal program in management consists of five parts:

	Courses	Credits	Percentage of Total Credits
1. General Education (including two courses in Learning Skills)	9	36	29%
2. Management Major Requirements:			
a. Cognate Courses in Economics and Mathematics	5	20	16%
b. Management Core Program	9	30	24%
c. Management/Econ- omics Electives	4	16	13%
3. Electives	6	22	18%
TOTAL FOR DEGREE	33	124	100%

The various parts of the program are explained in the following sections.

1. General Education

Oakland University requires all undergraduates in degree programs to participate in a set of courses designed to provide a broad intellectual experience in liberal education. Management students usually satisfy this general education requirement by meeting the requirements described below or by participating in the program of Allport College, or New-Charter College.*

The School of Economics and Management requires that each student take at least seven courses (28 credits) in general education, distributed as follows:

(1) Learning Skills

(0-8 credits)

The student must obtain a certificate of proficiency in English composition from the Department of Learning Skills. The student may obtain this certification by passing an examination upon entering Oakland; otherwise he or she will be required to take courses in the Department of Learning Skills until he or she earns the certification of proficiency in English (normally two courses).

(2) Distribution Requirements

The student must take at least one course in each of the following four fields within the College of Arts and Sciences.

(a) Arts (4 credits)

Any courses for which the student qualifies that is offered by the departments of Art History, Studio Art, or Music, or UC 045 (Introduction to Theater).

(b) Letters (4 credits)

Any course for which the student qualifies that is offered by the departments of English, History, Philosophy, or Religious Studies, or any course in literature offered by the departments of Classics and Modern Languages and Literatures, or SCN 310 (Philosophy of Rhetoric), or ED 244 (Social and Philosophic Issues in Education).

(c) Natural Sciences (4 credits)

Any course for which the student qualifies that is offered by the departments of Biology, Chemistry, or Physics, or any course in Science or Environmental Studies (except ENV 151).

(d) Area Studies (4 credits)

Any one of the following introductory Area Studies courses: China (UC 062), Japan (UC 063), Africa (UC 064), India (UC 066), Latin American (UC 068), and the Slavic World (UC 070).

(3) Distribution Elective (4 credits)

In addition to the courses required above, the student must elect one more general education course from the four fields listed above or from the courses in Symbolic Systems. The Symbolic Systems field covers any course from the following departments not required for the management major and for which the student qualifies: Computer and Information Science, Mathematics, Linguistics, and the language courses offered by the departments of Classics and Modern Languages.

(4) Social Science (8 credits)

The student must take two courses for which he qualifies from one of the following social sciences departments: Political Science, Psychology, Sociology, Anthropology, and Speech Communication (except SCN 310).

These distribution courses are normally taken throughout the student's semesters of study.

Management Major Requirements**a. Economics and Mathematics Cognate Courses**

To obtain a basic set of skills useful in management, the student is required to take the following:

		Credits
ECN 100-101	Introduction to Economics I and II	8
ECN 216	Microeconomic Analysis	4
MTH 121-122	Introductory Mathematics for the Life and Social Sciences or MTH 154-155 (Calculus)	8
TOTAL		20

The mathematics and quantitative methods requirement for a degree in management consists of two parts. The first part is a 2-course sequence (MTH 121-122 or MTH 154-155), designed to develop the fundamental mathematical skills used in subsequent courses in the management program. Depending upon the results of placement testing, some students may be advised to take MTH 120 before beginning the MTH 121-122 sequence or they may be advised to take MTH 134 before beginning the MTH 154-155 sequence.

The second part of this requirement consists of one course in intermediate-level quantitative methods. To meet this requirement, the student may select any one of the following courses as part of the Management Core Program: MGT 340, MGT 305, MGT 442, ECN 405, or MTH 322.

The appropriate choice from the above alternatives will depend upon the student's overall educational and career plans. Students who expect to go on to graduate school should obtain as strong a foundation in economics, mathematics, and quantitative methods as possible. Toward this goal, it is suggested that such students take the MTH 154-155 sequence (Calculus), followed later either by MGT 340 or by MTH 322.

All students are urged to consult a faculty adviser as early as possible concerning their programs.

Management Core Program

The required management core program consists of the following courses:

		Credits
MGT 200	Managerial Accounting: Introduction to Management Information and Control Systems	4
MGT 201	Computer Laboratory for MGT 200	1
MGT 210	Management Information and Control Systems II (Statistics)	4

MGT 211	Computer Laboratory for MGT 210	1
MGT 300	Management Systems Analysis	4
MGT 330	Organizational Behavior I	4
MGT 331	Organizational Behavior II	4
MGT 435	Management Strategies and Policies	4

Choice of a Quantitative Methods course:

MGT 340	Quantitative Methods of Management Science
MGT 305	Computer Systems for Problem Solving
MGT 442	Operations Research
ECN 405	Econometrics
MTH 322	Mathematical Models in the Social Science

TOTAL IN
MANAGEMENT CORE PROGRAM 30

Management/Economics and Social Science Electives

The student completes work in management by electing four additional courses (16 credits) offered by the School of Economics and Management. It is recommended that the student take at least one elective from those based on macroeconomics: either ECN 217, ECN/MGT 303, or ECN/MGT 321.

Electives

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

Modifications to the management program may be sought by petitioning the Committee on Instruction of the School of Economics and Management. If the requested changes to the above program are significant, the Committee may ask the student to work toward a Bachelor of Science with an independent concentration. (See p. 266.)

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN MANAGEMENT

A student with a major in management must meet the following requirements in order to graduate:

1. Have completed at least 124 credits.
2. Have completed 32 credits at Oakland University. A student must normally be registered at Oakland University for

at least 8 credits during the semester in which the degree is to be conferred.

3. Have a cumulative grade point average of at least 2.0 in courses taken at Oakland University and in courses in the Major.
4. Have completed at least 8 credits in electives.
5. Have completed the program detailed above under General Education and Management Major Requirements.
6. Be in substantial compliance with all legal curricular requirements.

REQUIREMENTS FOR MAJOR STANDING

Admission to major standing requires: (a) certification in English proficiency; (b) the completion of ECN 100-101, ECN 216, MGT 200-201, and MTH 121-122 (or equivalent); (c) the completion of 56 credits; and (d) a cumulative grade point average of 2.0 overall and in management courses.

BACHELOR OF SCIENCE IN MANAGEMENT

(A Typical Program)

Semester 1

Learning Skills (if required) /Elective
ECN 100
MTH 121 (or MTH 154)
Distribution Requirement

Semester 3

MGT 200 and 201
ECN 216
MGT 330
Distribution Requirement

Semester 5

MGT 300
MGT/ECN Elective
Social Science
Distribution Requirement
Elective

Semester 2

Learning Skills (if required) /Elective
ECN 101
MTH 122 (or MTH 155)
Distribution Requirement

Semester 4

MGT 210 and 211
MGT 331
Distribution Requirement
Elective

Semester 6

Quantitative Methods Course
(MGT 340, MGT 305, MGT 442, ECN 405, or MTH 322)
MGT/ECN Elective
Social Science
Distribution Requirement
Elective

Semester 7

MGT/ECN Elective
Distribution Elective
Elective
Elective

Semester 8

MGT 435
MGT/ECN Elective
Elective

UNDERGRADUATE PROGRAM LEADING TO THE BACHELOR OF SCIENCE (INDEPENDENT CONCENTRATION)

Students wishing to pursue special interests may develop independent concentration leading to the degree of Bachelor of Science in the School of Economics and Management. This independent concentration will be designed by the student and one or more faculty advisers. A Plan of Work is to be submitted as early as possible by the student and his or her advisers to the Committee on Instruction. The approval of the Plan of Work by the Committee is required for all independent concentrations and for any deviation from the Plan of Work.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE WITH AN INDEPENDENT CONCENTRATION

A student with an independent concentration must meet the following requirements in order to graduate:

1. Have completed at least 124 credits.
2. Have completed 32 credits at Oakland University. A student must normally be registered at Oakland University for at least 8 credits during the semester in which the degree is to be conferred.
3. Have a cumulative grade point average of at least 2.0 in courses taken at Oakland University and in courses in the Concentration.
4. Have completed at least 8 credits in electives.
5. Have obtained certification of his/her English proficiency.
6. Have completed at least 28 credits in the General Education Program detailed above, or have completed an equivalent number of credits in Allport College, or New-Charter College.

7. Have successfully completed a Plan of Work that was developed with a faculty adviser or advisers and that was approved by the Committee on Instruction of the School of Economics and Management.
8. Be in substantial compliance with all legal curricular requirements.

REQUIREMENTS FOR MAJOR STANDING

Admission to major standing requires: (a) certification in English proficiency, (b) a total of 56 credits completed, (c) a cumulative grade point average of 2.0 or better, and (d) an approved Plan of Work.

NOTE: The School of Economics and Management is in the process of introducing new courses in several areas, including Accounting, Marketing and Consumer Behavior, Legal Environment of Business, and Managing Personal Finances. These courses will allow students to concentrate their work, should they so desire, in such areas as Accounting and Finance, Marketing, Public-Sector Management, and Information Systems and Computer Sciences. In addition, the School participates in a new interdisciplinary concentration in Operations Research. For details of the new courses and possible concentrations, the student should consult an academic adviser in the School.

UNDERGRADUATE PROGRAM LEADING TO THE BACHELOR OF ARTS IN ECONOMICS

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

The liberal arts program in economics leads to the degree of Bachelor of Arts and is offered in the College of Arts and Sciences under the direction of the faculty in economics of the School of Economics and Management. Students taking liberal arts majors, including the economics major, must satisfy the appropriate degree requirements in the College of Arts and Sciences as described in this catalog. The College of Arts and Sciences requirements for Economics Majors are specified in the program description below.

PROGRAM IN ECONOMICS

The normal program in economics consists of five parts:

	Courses	Credits	Percentage of Total Credits
1. General Education (including two Learning Skills Courses)	8	32	26%
2. Economics Major Requirements:			
a. Cognate Courses in Mathematics and the Social Sciences	4	16	13%
b. Economics Core Program	7	25	20%
c. Economics Electives	3	12	10%
3. Electives	10	39	31%
TOTAL FOR DEGREE	32	124	100%

The various parts of the program are explained in the following sections.

1. General Education

Oakland University requires all undergraduates in degree programs to participate in a set of courses designed to provide a broad, intellectual experience in liberal education. Economics students can satisfy this general education component by meeting the requirements of the College of Arts and Sciences or by participating in the program of Allport College, or New-Charter College (see pp. 349 of this catalog for details of these inner colleges). The College of Arts and Sciences general education requirements, as they apply specifically to economics majors, are described below.

The College of Arts and Sciences requires that the economics major take at least 6 courses (24 credits) in general education, distributed as follows:

(1) Learning Skills (0-8 credits)

The student must obtain a certificate of proficiency in English composition from the Department of Learning Skills. The student may obtain this certification by passing an examination upon entering Oakland; otherwise, he will be required to take courses in the Department of Learning Skills to earn this certification (normally 2 courses).

(2) Distribution Requirements (12 credits)

The student must take at least **one course in 3 of the following four fields** within the College of Arts and Sciences:

(a) Arts **(4 credits)**
Any course for which the student qualifies that is offered by the departments of Art, History, Studio Art, or Music, or UC 045 (Introduction to Theater).

(b) Letters **(4 credits)**
Any course for which the student qualifies that is offered by the departments of English, History, Philosophy or Religious Studies, or the literature courses of the departments of Classics and Modern Languages and Literatures, or SCN 310 (Philosophy of Rhetoric), or ED 244 (Social and Philosophical Issues in Education).

(c) Natural Sciences **(4 credits)**
Any course for which the student qualifies that is offered by the departments of Biology, Chemistry, or Physics, or any course in Science or Environmental Studies (except ENV 151).

(d) Area Studies **(4 credits)**
Any one of the following introductory Area Studies courses: China (UC 062), Japan (UC 063), Africa (UC 064), India (UC 066), Latin America (UC 068), and the Slavic World (UC 070).

(3) Distribution Electives **(12 credits)**
In addition to the courses required above, the student must elect 3 more general education courses from the four fields listed above or from the courses in Symbolic Systems. The **Symbolic Systems** field covers any course for which the student qualifies which is not required for the major and offered by the following departments: Computer and Information Science, Mathematics, Linguistics, or the language courses offered by the departments of Classics and Modern Languages. The student is limited to using a total of 3 courses in a field including required courses, to meet this requirement.

These distribution courses are normally taken throughout the student's semesters of study.

2. Economics Major Requirements

a. Mathematics and Social Science Cognate Courses

To obtain a background in mathematics and another social science discipline, the student is required to take the following:

		Credits
MHT 121-22	Introductory Mathematics for the Life and Social Sciences or MTH 154-155 (Calculus)	8
Social Science	The student must take 2 courses for which he qualifies from	

one of the following social sciences: Political Science, Psychology, and Speech Communication (except SCN 310). 8

TOTAL 16

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

b. Economics Core Program

The required economics program consists of the following courses:

ECN 100-101	Introduction to Economics I and II	8
ECN 210	Statistical Methods for the Social Sciences	4
ECN 211	Laboratory for ECN 210	1
ECN 216	Microeconomic Analysis	4
ECN 217	Macroeconomic Analysis	4
ECN 480	Seminar or ECN 418 Selected Topics in Economics	4
TOTAL IN ECONOMICS CORE PROGRAM		25

c. Economics Electives

The student completes his work in economics by electing at least 3 additional courses (12 credits) in economics. Two of the electives must require either ECN 216 or ECN 217 as a prerequisite.

Electives

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

Modifications to the Economics program may be sought by petitioning the Committee on Instruction of the School of Economics and Management. If the requested changes to the above program are significant, the Committee may ask the student to work toward a Bachelor of Arts with an independent concentration. (See pp. 56 of this catalog.)

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS IN ECONOMICS

A student with a major in economics must meet the following requirements in order to graduate:

1. Have completed at least 124 credits.
2. Have completed 32 credits at Oakland University. A student must normally be registered at Oakland University for at least 8 credits during the semester in which degree is to be conferred.
3. Have a cumulative grade point average of at least 2.0 in courses taken at Oakland University and in courses in the major.
4. Have completed at least 8 credits in electives.
5. Have completed the program detailed above under General Education and Economics Major Requirements.
6. Be in substantial compliance with all legal curricular requirements.

REQUIREMENTS FOR MAJOR STANDING

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

LIBERAL ARTS MAJOR IN ECONOMICS

(A Typical Program)

Semester 1

Learning Skills (if required)
/Elective
MTH 121 (or MTH 154)
ECN 100
Distribution Requirement

Semester 3

ECN 216
ECN 210 and 211 (or MGT
210 and 211)
Distribution Requirement
Elective

Semester 2

Learning Skills (if required)
/Elective
MTH 122 (or MTH 155)
ECN 101
Distribution Requirement

Semester 4

ECN 217
Distribution Requirement
Social Science Requirement
Elective

Semester 5
Economics Elective
Social Science Requirement
Distribution Requirement
Elective

Semester 7
Economics Elective
Elective
Elective
Elective

Semester 6
Economics Elective
Distribution Requirement
Elective
Elective

Semester 8
ECN 480 (or ECN 418)
Elective
Elective

COURSE OFFERINGS IN MANAGEMENT

Under special circumstances, the prerequisites may be waived.

MGT 100 Management: What Is It? (4 credits)

An introduction to the character of management activities and the environment in which these take place; the individual and the firm viewed as utility-maximizing systems; some elementary principles relating individuals and firms to the economic system. In dealing with these issues, the course introduces the student to some pervasive and transferable generalized skills applicable to perception and solving of problems.

MGT 200 Managerial Accounting: (4 credits)
Introduction To Management
Information and Control Systems I

Introduction to management information systems as aids to decision-making and the identification, quantification, and communication of managerial information. To include: accounting and other internal management languages; budgeting; introduction to the use of computer-based information systems. Ordinarily offered in the Fall and Winter Semesters.
Corequisite: MGT 201.

MGT 201 Computer Laboratory (1 credit)
for MGT 200

Introduction to computers in information processing systems; computer languages and flow charts. Ordinarily offered in the Fall and Winter Semesters.

MGT 205 Introduction to (4 credits)
Computer Programming

Introduction to the use of computers. Students learn the BASIC language in an interactive time-sharing environment and FORTRAN in the batch mode. Ordinarily offered in the Fall Semester.
Prerequisite: Knowledge of high school algebra.

MGT 324 Business in the American Economy (4 credits)

Public attitudes toward, and government regulation of, business; social and legal responsibilities of business. Identical with ECN 324.
Prerequisites: ECN 216 or equivalent.

MGT 325 Industrial Organization (4 credits)

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

MGT 330 Organizational Behavior I (4 credits)

Individual Behavior in Organizations. An exploration of relationships between individuals and organizations. Applications from general social and industrial psychology to the management of work performance evaluation, supervision, influence of informal work groups, and behavioral change are surveyed both empirically and theoretically. In all cases, development of the student as an analytical consumer of behavioral data will be stressed. Identical to PSY 235. Ordinarily offered in the Fall Semester.

MGT 331 Organizational Behavior II (4 credits)

Social Psychology of Organization Behavior. Implications for organizational management of group behavior. Theoretical and empirical approaches to issues such as communication, decision-making, power and authority, conflict, organizational change, leadership, and organizational climate. Emphasis will be placed on developing the student as an analytical consumer of data. Identical to PSY 236. Ordinarily offered in the Winter Semester.
Prerequisites: MGT 330 or equivalent.

MGT 333 Labor-Management Relations (4 credits)

Analysis of management-employee relations in modern industry; public policy in labor-management areas. Identical with ECN 333.
Prerequisites: ECN 216 or equivalent.

MGT 340 Quantitative Methods of Management Science (4 credits)

Applications of statistics, linear programming, and other quantitative techniques to management problems.
Prerequisites: MTH 122 and MGT 210, or equivalent.

MGT 342 Simulation in Management (4 credits)

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

MGT 402 Marketing and Consumer Behavior (4 credits)

Analysis of consumer behavior and its significance for market analysis. The relationship between market structure and marketing behavior.
Prerequisite: Permission of the instructor.

MGT 430 Assessment of Organizational Behavior (4 credits)

Use of findings and methods of various behavioral research strategies as inputs for managerial problem-solving. Comparison of case, experimental, survey, correlational, and other approaches. Issues of reliability and validity of

data, and research bias. Review of various methods of individual and organizational measurement devices, including industrial tests, morale surveys, etc. Practical experience in the collection and evaluation of data will be included.
Prerequisite: MGT 331.

MGT 431 Leadership and Group Performance (4 credits)

A comprehensive examination of different theories of leadership. Emphasis on relevant empirical evidence and application of the theories to case studies.
Prerequisite: MGT 331.

MGT 435 Management Strategies and Policies (4 credits)

Financial, economic, and other management tools used to analyze organizational case studies.
Prerequisite: 16 credits in management.

MGT 442 Operations Research (4 credits)

Operations research techniques are used in exploring problems selected from several areas of organizational and business analysis. Identical with ECN 442.
Prerequisites: ECN 216 or equivalent.

MGT 460 Independent Group Study (2 or 4 credits)

Students in this course determine which current economic issues are of interest to them and prepare a program for pursuing these issues in depth. The course consists primarily of student participation, but students may draw upon the faculty for consultation and direction. Although independent research is an integral part of the course, the major emphasis is on class discussion and analysis. Identical with ECN 460.
Prerequisite: Major standing.

MGT 490 Independent Research (2 or 4 credits)

Offered every semester.
Prerequisite: Permission of the instructor.

BASIC COURSES

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

ECN 100 Introductions to Economics I (4 credits)

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

ECN 101 Introduction to Economics II (4 credits)

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

ECN 169 Introduction to the Political Economy of Capitalism (4 credits)

An introduction to the economic analysis of the capitalist economy using the tools and perspectives of both the traditional and radical economists. Topics include: (a) microeconomics — the development of the market system, monopoly, discrimination, pollution and other ecological concerns, and poverty; (b) macroeconomics — control of the level of economic activity, unemployment, inflation, defense spending, growth and under-development, and imperialism; and (c) alternative economic systems.

This course is not open to majors in economics or management.

ECN 210 Statistical Methods for the Social Sciences (4 credits)

Statistical techniques useful in business and economic analysis. Emphasis on statistical inference, including hypothesis testing, estimation, and regression techniques. Ordinarily offered in the Fall Semester.

Prerequisites: MTH 122 or equivalent.

Corequisite: ECN 211.

ECN 211 Laboratory for ECN 210 (1 credit)

Use of computers in statistics. Ordinarily offered in the Fall Semester.

ECN 216 Microeconomic Analysis (4 credits)

Intermediate analysis of pricing, resource allocation, and income distribution at the level of the individual firm, industry, and household consuming unit. Ordinarily offered in the Fall and Winter Semesters.

Prerequisites: ECN 101 or equivalent.

Prerequisites or corequisites: MTH 122 or equivalent.

ECN 217 Macroeconomic Analysis (4 credits)

The construction, analysis, and interpretation of models of aggregate economic behavior, including the policy implications of alternative models. Ordinarily offered in the Fall and Winter Semesters.

Prerequisites: ECN 101 or equivalent.

Prerequisites or corequisites: MTH 121 or equivalent.

ECONOMICS ELECTIVES

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

a course will be announced in a supplementary bulletin published during the advising period for a given semester. Under special circumstances, the prerequisites and corequisites for a course may be waived.

ECN 223 The Indian Economy (4 credits)

The economic problems of developing nations in the context of the Indian economy.

ECN 225 American Economic History (4 credits)

Models and case studies of principal events in the growth and development of the American economy from colonial times to the present. Emphasizes the evolution of current historical thought under the impact of economic analysis. Prerequisites: ECN 100 or equivalent.

ECN 300 Systems Analysis (4 credits)

Emphasis the identification of goals and the use of resources for achieving goals through the application of analytical and quantitative tools developed in earlier courses to problems drawn from a variety of experiences, e.g., financial management, marketing, production, capital budgeting, etc. The course is designed to develop students' skills in the use of tools, to facilitate the transferability of these skills, and to enhance their ability to develop new skills as required by a given situation. Identical with MGT 300. Ordinarily offered in the Fall and Winter Semesters. Prerequisites: ECN 216 or equivalent.

ECN 303 Economic Growth, Fluctuations, and Forecasting (4 credits)

Analysis of the forces underlying economic growth in advanced nations. Study of business conditions and various factors affecting business fluctuations. Introduction to economic forecasting techniques for the individual firm and for the national economy. Identical with MGT 303. Ordinarily offered in the Fall Semester.

Prerequisites: ECN 101 or equivalent.

ECN 308 Urban-Regional Economics (4 credits)

Application of the tools of economic analysis to the problems of the determination of the level, distribution, growth, and stability of income within and among urban regions. Study of the impact of these processes on spatial organization, transportation, industrial location, and the provision of public services. Prerequisites: ECN 100 or equivalent.

ECN 309 Metropolis: Problems and Policies (4 credits)

A survey of the economics of urban problems in the United States. Includes the analysis of urban poverty, land use, transportation, and environmental quality; discussion of the economics of political fragmentation and the nature of national urban policy; review of the state of the art in urban planning. Selected problems of the Detroit area economy are examined.

Prerequisites: ECN 100 or equivalent.

ECN 321 Monetary Theory and Policy (4 credits)

Analysis of modern monetary and banking theories. The course investigates both domestic and international monetary analysis and policies, and the relationship between monetary and fiscal policies as they affect the economy. Prerequisites: ECN 101 or equivalent.

ECN 322 Capital Markets (4 credits)

Analysis of the operation of major financial institutions and markets. Sources and uses of funds for corporations and other organizations. Identical with MGT 322.

Prerequisites: ECN 216 or equivalent.

ECN 323 International Trade and Finance (4 credits)

The theory of international specialization and exchange, commercial policy, national income and balance of payments, monetary relations, foreign investment, and current issues of international economic policy.

Prerequisites: ECN 216 or equivalent.

ECN 324 Business in the American Economy (4 credits)

Public attitudes toward, and government regulation of, business; social and legal responsibilities of business. Identical with MGT 324.

Prerequisites: ECN 216 or equivalent.

ECN 325 Industrial Organization (4 credits)

Resource patterns, production processes (including technology and economies of scale), and managerial organization as related to the size of firms and the location of industries. Identical with MGT 325.

Prerequisites: ECN 216 or equivalent.

ECN 326 Economic Development (4 credits)

Application of the tools of economic analysis to the problems of economic development and growth.

Prerequisites: ECN 100 or equivalent.

ECN 333 Labor-Management Relations (4 credits)

Analysis of management-employee relations in modern industry; public policy in labor-management areas. Identical with MGT 333.

Prerequisites: ECN 216 or equivalent.

ECN 336 Economics of the Public Sector (4 credits)

A study of the role and impact of the public sector in a market economy. Includes expenditure determination, revenue source analysis, and discussion of current problems.

Prerequisites: ECN 101 or equivalent.

ECN 342 Simulation in Economics (4 credits)

An introduction to the use of simulation techniques in economic analysis.

Prerequisites: Major standing and permission of the instructor.

ECN 350 Economic Structures and Systems (4 credits)

A comparative analysis of the principles, structures, and ideologies of capitalism, socialism, and the command economy, with special emphasis on the processes of economic decision-making.

Prerequisites: ECN 216 or equivalent.

ECN 405 Econometrics (4 credits)

An introduction to the testing of economic models, expressed mathematically, by statistical methods.

Prerequisites: ECN 210, ECN 216, ECN 217 (or equivalent courses), and permission of the instructor.

ECN 417 Advanced Economic Theory (4 credits)

This course covers selected topics in the economic theory of resource allocation, economic growth, and stability.

Prerequisites: ECN 216 and 217, or equivalent.

ECN 418 Selected Topics in Economic Policy (4 credits)

Prerequisite: Major standing.

ECN 442 Operations Research (4 credits)

Operations research techniques are used in exploring problems selected from several areas of organizational and business analysis. Identical with MGT 442.

Prerequisites: ECN 216 or equivalent.

ECN 460 Independent Group Study (4 credits)

Students in this course determine which current economic issues are of interest to them and prepare a program for pursuing these issues in depth. The course consists primarily of student participation, but students may draw upon the faculty for consultation and direction. Although independent research is an integral part of the course, the major emphasis is on class discussion and analysis. Identical with MGT 460.

Prerequisite: Major standing.

ECN 480 Seminar (4 credits)

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

ECN 490 Independent Research (2 or 4 credits)

Offered every semester.

Prerequisite: Permission of the instructor.

MASTER OF SCIENCE IN MANAGEMENT

Oakland University offers a program leading to the Master of Science in Management. The program stresses recognized common elements in management rather than concentrating on narrow traditional specialties. It is designed to educate students for managerial roles in either the private or public and not-for-profit sectors of the economy. In the program, learning experiences are designed to integrate areas of economics, behavioral science, and quantitative methods with functional aspects of managerial problems. At the same time, students are prepared for entry-level jobs in both private and public sectors. Such an outlook is consistent with current advanced thinking on management education as expressed by academic, business, and public-sector leaders.

PROGRAM OF STUDY

The Master of Science in Management (M.S.M.) program, consisting of 48 semester-hours of credit, is designed primarily for students with little or no prior academic experience in management or business administration. A typical entering class may consist of substantial numbers of undergraduate majors from the social and natural sciences, engineering, and the humanities, as well as from other majors. Undergraduate majors in business administration may in some circumstances be admitted. Such students should contact the Office of the Dean of the School of Economics and Management for evaluation of their credentials.

Students may elect to enter the program on a full-time or part-time basis. "Full time" is defined as twelve-credit hours in both the Fall and Winter terms for a period of two years. "Part time" is for students who wish to take two courses in the Fall, two courses in the Winter, and one course in each of the Spring and Summer sessions for two years. Thus, all students, whether full time or part time, can complete the program in two calendar years. **Students will not be admitted to take courses on a piece-meal, one course at a time, basis.** For the 1973-1974 academic year, courses for part-time students will be offered from 4:00 to 6:00 p.m., Monday through Thursday.

For further information concerning the Master's program, interested persons should contact the Graduate Office or the Office of the Dean of the School of Economics and Management.

SCHOOL OF EDUCATION

OFFICE OF THE DEAN:

LASZLO J. HETENYI, DEAN

RICHARD F. BARRON, DIRECTOR OF GRADUATE PROGRAMS

HARRY T. HAHN, DIRECTOR OF SCHOOL SERVICE

JAMES W. HUGHES, DIRECTOR OF TEACHER EDUCATION

WILLIAM B. JORNS, ADMINISTRATIVE ASSISTANT TO THE DEAN

WILLIAM F. MOORHOUSE, DIRECTOR OF HUMAN RESOURCES DEVELOPMENT

GERALDINE M. PALMER, ADMINISTRATIVE ASSISTANT TO SCHOOL SERVICES

COREY M. VAN FLEET, JR., DIRECTOR OF PHYSICAL EDUCATION AND ATHLETICS

PROFESSORS: Edward A. Bantel; Harold A. Cafone; George E. Coon; Ronald L. Cramer; Sidney W. Graber; Harry T. Hahn; Laszlo J. Hetenyi; Hollie L. Lepley; Virginia B. Morrison; David C. Beardslee; Melvin Chernob; George F. Feeman; Donald C. Hildum; G. Philip Johnson; Jack R. Moeller; Lewis N. Pino

ASSOCIATE PROFESSORS: Eugene H. Boldon; David C. Bricker; Marc E. Briod; F. James Clatworthy; W. Dorsey Hammond; James W. Hughes; Patrick J. Johnson; Jacqueline I. Loughheed; William F. Moorehouse; Robert G. Payne; Roderick E. Righter; Corey M. Van Fleet, Jr.; Raynold L. Allvin; Don R. Iodice; Glenn A. Jackson; Boaz Kahana; David G. Lowey; Donal G. Malm

ASSISTANT PROFESSORS: Richard F. Barron; Jane M. Bingham; Frederick D. Chandler; Robert J. Christina; Jean L. Easterly; Douglas C. Fairbanks; Joel S. Fink; William C. Fish; Bruce R. Harker; Beverly F. Jones; Edward M. Liddle; James C. Schmidt; Virginia

M. Schuldenberg; David G. Smith; Ronald M. Swartz;
Susan C. Tenorio; Jacqueline R. Scherer

INSTRUCTORS: Delphine A. Bozardt; Carol Halstead;
William G. Pfaff; Doris M. Sponseller; Calvin Wil-
liams, Jr.

VISITING LECTURER: Betty L. Hutchinson

THE UNDERGRADUATE PROGRAMS

The School of Education offers programs which prepare students for careers in teaching as well as related human service activities.

I. TEACHING CAREERS

The School of Education, in cooperation with the College of Arts and Sciences, offers a B. A. degree with teacher certification for elementary and secondary teaching credentials.

ELEMENTARY EDUCATION PROGRAMS

Prospective elementary school teachers must take a common core program and choose one area for major concentration 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 and the concentrations complete all University requirements for graduation except that together they do not normally yield sufficient credits for the degree of Bachelor of Arts. To reach the minimum graduation requirement of 124 credits, students, in consultation with the elementary education advising office, must complete their programs with electives. Assistance in program planning is given through the Elementary Education Faculty within the Department of Teacher Education. (See Director of Teacher Education for such assistance.)

Core Program

Learning Skills: Certificate of competence through examination course work in learning skills — 0-8 credits.

2 semesters of Foreign Language or Linguistics 176, 177	8 credits
Psychology (UC 054 or PSY 146 or PSY 271)	4 credits
ART 147 or 100	5 credits
MUS 149	5 credits
MTH 314	4 credits
MTH 315 and MTH 316*	8 credits
SCI 305	4 credits
Area Studies	4 credits
Literature (UC 018, Eng. 105 or 111 or 140, or any course in foreign language numbered 271 or higher)	4 credits
Social Science (other than Psychology)	4 credits
ED 244, 245	8 credits
ED 331	4 credits
ED 433 and ED 455	16 credits

*Students in the foreign language major concentration must elect the foreign language 114-115 sequence for 10 credits and are not required to take MTH 315 and MTH 316.

Major Concentration

HISTORY/SOCIAL SCIENCE

Psychology (UC 054 or PSY 146 or PSY 271)	} From the Core Program	4 credits
Area Studies		4 credits
Social Sciences		4 credits
HST 214, 215		8 credits
Additional courses in history, social science, geography, area studies		16 credits
Total		36 credits

MODERN LANGUAGE

Foreign Language (From the Core Program)	10 credits
Additional courses in same language offered in fulfillment of core requirement	26 credits
Total	36 credits

NOTE: Students who plan to combine a foreign language major concentration with a language arts minor should include LIN 176, 177, as a part of the minor sequence.

LANGUAGE ARTS

Foreign Language or LIN (ENG)	} From the	8 credits
Literature 176, 177		Core Program
Additional courses in English, speech, foreign language*		24 credits
Total		36 credits

NOTE: ED 332 can be used as part of this concentration.

*Students who elect a foreign language to satisfy the language requirement must include ENG 176 or 177 as part of this concentration.

SCIENCE/MATHEMATICS

MTH 314, 315, 316	} From the	12 credits
SCI 305		Core Program
Additional courses in science and mathematics approved by the Committee on Science and Mathematics		20 credits
Total		36 credits

Minor Concentration Options

HISTORY/SOCIAL SCIENCE

Psychology (UC 054 or PSY 146 or PSY 271 Area Studies	} From the Core Program	4 credits
Social Sciences		4 credits
HST 214, 215		8 credits
Additional courses in history, social science, geography, area studies		4 credits
Total		24 credits

LANGUAGE ARTS

Foreign Language or LIN (Eng.) 176, 177	} From the	8 credits
Literature		Core Program
Additional courses in English, speech and foreign language*		12 credits
Total		24 credits

NOTE: ED 332 can be used as part of this concentration.

*Students who elect a foreign language to satisfy the language requirement must include ENG 176 or 177 as part of this concentration.

SCIENCE/MATHEMATICS

MTH 314, 315, 316	} From the Core Program	12 credits
SCI 305		4 credits
Additional courses in science and/or mathematics		8 credits
Total		24 credits

SECONDARY TEACHING MAJORS

A variety of teaching major and minor options for secondary teaching certification are offered through the departments of the College of Arts and Sciences. Specific major-minor requirements are listed in those departmental listings. Further inquiries regarding program details should be made to the major-minor departmental advisor in the College of Arts and Sciences.

Secondary teaching majors are available in the following subject areas:

- | | |
|-----------|----------------|
| Biology | Mathematics |
| Chemistry | Music |
| English | Physics |
| French | Russian |
| German | Spanish |
| Latin | Social Studies |

SECONDARY TEACHING MINORS

Ten teaching minors are available to the prospective secondary school teacher. They are:

- | | |
|-------------|----------------|
| Art | Modern Lan- |
| Biology | guages |
| Chemistry | Physics |
| English | Science |
| History | Social Studies |
| Mathematics | |

**SPONSORSHIP FOR MICHIGAN
TEACHER CERTIFICATION**

The State Department of Education certifies teachers in Michigan. It issues provisional certification to candidates deemed qualified by colleges and universities. This Provisional Certificate can be converted to a Permanent Certificate after a period of teaching and additional studies. Oakland University sponsors its graduates for the Provisional Elementary and the Provisional Secondary Certificates if the following requirements are met:

1. Completion of the University baccalaureate with a teaching major and one appropriate minor.
2. An internship (ED 455) grade of 2.5 or better.
3. Demonstrated proficiency in the use of English. The criteria of acceptability may be ascertained by consulting the School of Education Office. Students should satisfy this requirement before the senior year to allow time to remove deficiencies.

NOTE: Students who expect to teach in a state other than Michigan should ascertain what requirements beyond those of Michigan that state demands. It is the responsibility of the student to plan his or her program accordingly.

II. HUMAN RESOURCES DEVELOPMENT CAREERS

A B.S. degree with a major in Human Resources Development is offered within the School of Education.

This program is designed to prepare students for service-action careers related to human problems and services and social change. It provides an opportunity to acquire knowledge and skills which are usable in a wide range of human services activities. This includes a selection from areas such as: child care and early childhood education; youth guidance and assistance; manpower counseling and related manpower development services, such as, career and employability development, vocational guidance and rehabilitation, and adult education, and assistance to persons regarding life adjustment needs and community needs such as, problems in drug abuses and alcoholism, community and cultural relations, corrections and law enforcement, family and human effectiveness, community mental health, and assistance to the aged.

A major goal is to develop potential leaders who have the analytic abilities, communication and organization skills, and the experimental know-how to respond to human needs in an era of great social change. The basic approach which permeates the program is the joining of understanding, skills, and service. Problem-solving and decision-making abilities are developed within a framework of practical field experiences and an on-the-job internship.

Students may select a major concentration in Early Childhood Education or Manpower Development. Also, additional

specializations are being planned. This program does **not** lead to teacher certification, however, certain course work can be elected which could be applied toward this end.

PREPARATION FOR ADMISSION

Entering Freshmen

Entering freshmen planning to major in human resources development are encouraged to take advantage of opportunities to work with people — children, youth, unemployed, aged, etc. Volunteer work is available in child care, youth assistance, recreation, services for the handicapped, nursing homes, religious social service groups, mental health institutions, and various community agencies which can provide valuable experience and career orientation for students who are interested in human services.

Agency Employees

Many persons who take courses in the Human Resources Development curriculum are mature adults who are employed by community agencies and institutions and desire to further their education to increase competency in their work and for the purpose of career mobility. They may be admitted to course work in the program upon recommendation of their employer or other person with related professional qualifications.

Transfer Students

Students who follow a planned program at another institution of higher education in a human development area with an emphasis on social science courses (anthropology, economics, political science, psychology and sociology) plus other general education courses will usually find that such preparation will apply toward the Bachelor of Science degree with a major in Human Resources Development. No more than 62 semester hours of community college credit is accepted toward the degree requirements.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE

Candidates for the degree of Bachelor of Science with a major in Human Resources Development must meet the following requirements:

1. Have completed at least 124 credits.
2. Have completed at least 32 of these credits at Oakland University, of which at least 16 credits must be in his or her elected concentration.
3. Have taken the last 8 credit hours needed to complete baccalaureate requirements in residence at Oakland University.
4. Have a cumulative grade point average in courses taken at Oakland University of at least 2.0.
5. Have demonstrated writing proficiency by meeting the University standard in English composition (0-8 credits).
6. Have completed the general education distribution requirement of at least 32 credits with credit in at least five of the six designated field groups. The field groups are: Area Studies, Arts, Letters, Natural Sciences, Social Sciences, and Symbolic Systems.
7. Have completed the concentration in Early Childhood Education or Manpower Development which consists of:
 - a. 24-28 credits in an area of specialization
 - b. 24-28 credits in supporting cognate courses
 - c. 8-12 credits in practicum or internship for a total of 60 credits.
8. Have completed 24-32 credits in elective courses.

Proficiency Testing

The term "complete" as used above in stating the degree requirements means either to establish credit in a course by earning a passing grade in the course, by passing a competency examination or by receiving transfer credit from another institution. In certain circumstances a course requirement may be formally waived by a successful Petition of Exception to the Committee on Instruction of the School of Education.

Writing Proficiency

Students majoring in Human Resources Development must demonstrate proficiency in writing by passing an essay test prepared and graded by the Department of Learning Skills. Freshmen will have an opportunity to take the test before commencing their first semester. If a student passes the test no further course work in English Composition will be required. Students not achieving the proficiency standard will be counselled to take certain English Composition courses

offered by the Department of Learning Skills prior to another attempt at the essay test.

Transfer students will be deemed to have met the writing proficiency standard upon presentation of two college level courses (at least 6 credits) in English Composition.

GENERAL EDUCATION

The general education distribution requirement provides a foundation in academic areas of the students choice and a broadening intellectual experience in liberal education.

Students who major in Human Resources Development must complete a total of 32 credits with credit in at least five of the six designated field groups. The field groups are: Area Studies, Arts, Letters, Natural Sciences, Social Sciences, and Symbolic Systems. Suggested courses are as follows:

1. Area studies — UC 064 or UC 068
2. Arts — UC 045, AH 262, MUS 100 or MUS 111
3. Letters — ENG 111, HST 215, HST 262, HST 292, REL 200 or PH 403
4. Natural Sciences — ENV 181, BIO 104, EGR 100, SCI 131-4, or SCI 141-2
5. Social Sciences — UC 054, PSY 146, AN 102, SOC 100, ECN 100, PS 100, ENV 151, ED 244 or ED 245
6. Symbolic Systems — CIS 180, LIN 176, MTH 121-122, SPN 114-115

A full explanation of courses which are accepted for general education is listed under the heading — Distribution Requirements. It is also possible for students to meet the general education requirements by enrollment in Allport or New-Charter College.

Concentration in Early Childhood Education

The concentration in Early Childhood Education offered through the major in Human Resources Development makes use of a number of the same courses which are offered in Early Childhood to students in Elementary Education. The Human Resources Development program includes alternate preparation in subjects other than education courses for the balance of the degree program, such as, related courses offered by the Departments of Psychology and Sociology/Anthropology and other general education courses

The program provides education for work in day-care centers, preparation to train parents, mothers, and pre-professionals who care for children in various settings, skills for the development, evaluation and licensure of day-care facilities, and in general development of one's ability to deal effectively with young children and their families in settings which do not require teacher certification.

Students may select a minimum of 24-28 credits from series of EC courses. See Director of Human Resources Development for specifics.

Concentration in Manpower Development

The concentration in Manpower Development was developed cooperatively with employers from community agencies and is designed to prepare personnel to function in a variety of human service and related professional roles. The applied course content in Human Interaction and in Human Resources Development is based upon performance objectives which require the application of theory and knowledge and the use of human development skills and techniques.

Students have an opportunity to develop competencies for effective work with youth and adults through practical field experiences, special problems, and internship courses. Students may choose preparation in areas such as: Manpower specialist and counseling work, drug abuse and alcoholism, youth assistance, social justice and corrections, vocational guidance and rehabilitation, community mental health, family and human effectiveness, human interaction, and assistance to the aged.

Opportunities for employment will continue to depend largely upon the willingness and capability of government to provide positions. Many who are currently employed in manpower development and related human services take course work in this program for the purpose of job upgrading. Some occupations in social service fields require graduate work, however, many persons are employed who have a Bachelor's degree or less. Field experiences courses, community service work, and internships usually can provide contacts which may lead to employment. For further information about concentrations contact the Director of Human Resources Development program in the School of Education.

Students may select a minimum of 24-28 credits from a variety of courses but must include a minimum of 8 credits in Human Interaction courses. See Director of Human Resources Development for specifics.

ED 225 Health and Nutrition — (4 credits)
Childhood

Includes knowledge of basic health and safety requirements and of basic nutritional and dietary needs for optimum development, with special emphasis on these as they relate to early childhood. Practical questions of menu planning, and uses of foods as aids to cognitive learning will be stressed as well as methods for creating a healthful and safe environment. Discussion of basic signs of illness and methods and sources of referral for children with special health or nutritional needs.

ED 244 Social and Philosophical (4 credits)
Issues in Education

Education is viewed in broad perspective, as both an interpersonal activity and a social institution. An attempt is made to deal with the often implicit assumptions that underlie policy and action decisions. Among questions pursued are those about the social meaning of the schooling process, the open and closed classroom, the role of the teacher, the necessity or relevance of various curricula, the politics of education, historical traditions, contemporary critiques, and the ultimate and immediate aims of education.
Prerequisite: Sophomore standing (32 hours).

ED 245 Psychological and Field (4 credits)
Studies in Education

Psychological factors involved in learning and development are examined in lectures, class discussions, and observations of teaching. These observations may be of actual teaching in the schools, or they may be observations of video tapes of teaching. Identical with PSY 245.

Prerequisite: Sophomore standing (32 hours) and 1 course in Psychology.

(SCI 305 — see page 27 in catalog.)

ED 321 The Teacher and (4 credits)
The Atypical Child

The identification and management of atypical children in a regular elementary classroom setting. The course will deal particularly with those children requiring special management techniques and some modification of curriculum. These children may be hyperactive or withdrawn; they may have emotional, perceptual, or learning problems; or they may be gifted. Sections on parental assistance in handling atypical children and on school and community services available for diagnosis and referral will be included.

Prerequisite: ED 244 and ED 245.

ED 322 Introduction To Early (4 credits)
Childhood: Theory and Practice

Provides a basic introduction to the field of early childhood, including the period from birth to age 8. Three major areas will be emphasized: growth and development of infants and young children, analysis of optimal learning environments for the young child, and methods and materials which facilitate learning in early childhood. Special emphasis will be placed on providing students with experience with infants and young children of a variety of socioeconomic backgrounds in group and individual settings and in relating theoretical knowledge to these practicum experiences. Probably 2 hours per class, 2 hours lab per week.

Prerequisite: ED 245 or PSY 271 or permission of instructor.

ED 323 Education of The Spanish- (4 credits)
Speaking in The United States

This course is intended to provide an opportunity for teachers and other educators to become familiar with the negative and positive aspects of Latino Education. Lectures, readings, and discussions will deal with background information about the Spanish-speaking in the U.S.; the problems that confront Latinos in the educational system; and the effective and promising approaches to educating the Spanish-speaking.

Prerequisite: ED 244, ED 245 or permission of the instructor.

ED 324 Parent and Community Involvement (4 credits)
in Early Childhood Programs

In-depth study of home-school coordination and education. Development of skills and sensitivities in the areas of parent-teacher conferences, utilization of parents in the classroom, and working with parents in the home. Exploration of roles of community agencies and community advisory committees in meeting needs of young children. Discussion and practice in the above areas, as well as an overview of parent-teacher-community relationships in the past and present, intergeneration contacts, exploration of aspects of parental and professional goals and values, control of children's educational experiences, and where there can be cooperation between parents and teachers. Includes an introduction to training parents for family day care roles and exploration of family-based child care models.

ED 325 Learning Environment (4 credits)
in Early Childhood

In-depth study of the learning environment and curriculum in early childhood education, including theoretical and practical aspects. Analysis of curriculum areas as they relate to individual children's needs and to the total learning environment. Child assessment and diagnostic techniques and development of programs which are appropriate for individual needs. Specific curricular methods relate to perceptual, physical, cognitive, language, social and emotional development and discussion of the contribution to learning of play and individual free choice activities as well as teacher directed and planned individual and group activities.

ED. 326 Introduction to Early (4 credits)
Childhood Program Operation

Provides an overview of types of program operation in early childhood, including private, industrial, cooperative, governmentally funded programs such as Headstart, follow through and the current legislation pertinent to early childhood. Direction and administration methods for various types of programs, understanding of budgets and initial acquaintance with the format and types of proposals necessary for funded programs. Basic knowledge of licensing requirements, assessment of needs and determination of financial feasibility of private, industrial and cooperative programs. Practical problems of direction of a center, hiring and training staff, handling administrative problems. The course is designed to give teachers and child care development majors the necessary background information which will enable them to work on committees planning early childhood programs and also to have basic skills necessary to direct programs which are in operation.

ED 331 Teaching and Reading (4 credits)

Intensive preparation for the teaching of reading skills in the elementary grades. Identification of reading readiness, problems of program construction, and a variety of teaching methods are among the topics of the course.

Prerequisite: ED 244 and ED 245.

ED 332 Literature For Children (4 credits)

The course treats literature for children as part of the mainstream of literature. Students will learn to apply basic concepts of criticism to the study of literary works for children, in order to develop the ability to select and use quality books appropriate to the needs and developmental levels of children.

Prerequisite: ED 244, ED 245 and completion of the general education distribution requirements in literature.

ED 333 Teaching The Language Arts (4 credits)

Preparation for the teaching of language arts in the elementary, middle and secondary schools. Teaching of composition, creative writing, oral language development, listening, spelling, reading, and the application of linguistic principles to reading, and writing, are among the topics covered in this course.

Prerequisite: ED 245.

ED 338 Teaching Reading In The Content Areas (4 credits)

A basic course in reading for students planning to teach in secondary schools. Course content will deal with the nature of the reading process and methods and materials for teaching the reading of English, social studies, and other subjects to junior and senior high school students. (Not open to elementary education majors.)

ED 365 Introduction To Student Personnel Services (2, 4, 6 or 8 credits)

Includes basic principles and practices, evaluation and organization of college student personnel services for persons who are currently engaged in some phase of student personnel work or who plan to enter this work in the near future.

Prerequisite: Permission of the instructor.

ED 369 Field Experiences In Guidance (2, 4, 6 or 8 credits)

Provides supervised experiences in a variety of helping relationships in work settings such as schools, employment offices, social service agencies, and in industry. Includes an orientation to various local community cultural settings and life styles. Experiences emphasize the process in helping young people and adults adjust to education or work experience.

Prerequisite: Permission of the instructor.

ED 428 Teaching of The Major Field (4 credits)

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.

Prerequisite: ED 244, ED 245, and major standing. Must be taken concurrently with ED 455 except when other provisions have been made by the major department.

ED 430 The Public School In Urban America (4 credits)

The course deals with the role of schools in contemporary urban America, with special emphasis on the relationship between the school and the urban ethos, social stratification, racial identities, and the functioning of the school in the urban ecology. In addition, discussions will include considerations of curriculum, organization, financing, and the legal status of education.

Prerequisite: ED 244, ED 245, and major standing.

ED 433 Teaching In The Elementary School (4 credits)

Content and methodology of instruction in the elementary school. Includes extensive field observation in schools. This course is designed to supplement specialized courses in the teaching fields.

Prerequisite: ED 244, ED 245, SCI 305, ED 331, MTH 314, and major standing. Must be taken concurrently with ED 455.

ED 455 Internship (12 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 244, ED 245, concurrent registration in ED 428 (when appropriate) or ED 433, and permission of both the student's major department and the School of Education. A student must perform his/her internship in his/her last or next to last semester (a last semester is one in which a student needs to complete no more than 16 credits to satisfy all graduation requirements.) A student must sign up for his/her internship one semester in advance. Except for ED 428 or ED 433, a student may not take any other course work concurrently with ED 455.

PROSPECTIVE STUDENT TEACHERS MUST REGISTER AT THE STUDENT TEACHING OFFICE AT THE BEGINNING OF THE SEMESTER PRIOR TO HIS/HER STUDENT TEACHING.

ED 456 Internship In Early Childhood Education (8-12 credits)

Culmination of the early childhood education program in which the student works in practicum settings such as day care center, nursery school, elementary school, or other early childhood programs. The experiences will be designed so that the students gradually assume total responsibility for an intensive field experience. At least one of the settings will be a team situation.

ED 460 Special Project In Guidance (2, 4, 6 or 8 credits)

Deals with specialized interests in various phases of guidance and personnel work. The specific topics of study will be determined by the student's particular interests. The course may be taken more than once, but for no more than a total of 8 credits. May be elected for independent study.

Prerequisite: Permission of instructor.

ED 463 Group Procedures In Helping Relationships (2, 4, 6 or 8 credits)

Includes a study of procedures used in small groups where individuals are helped to better understand themselves and others, to adjust to life situations, and to deal effectively with others in interpersonal relationships. Experience in such a group setting is provided as a major requirement of the course. Students are given an introduction to techniques they may use to provide support and help for others in a group situation.

ED 464 Teaching In Manpower Education Programs (2, 4, 6 or 8 credits)

Emphasizes the principles and basic teaching skills required in Manpower Education Programs. The student will develop skills in stating instructional objectives, planning activities appropriate for the attainment of the objectives and techniques of evaluating instructional outcomes. The importance of developing a sensitivity to the feelings, ideas and reactions of the students will be

stressed. Experiences in the teaching process will be provided through simulation and internships in programs such as General Education Development classes and Manpower Orientation classes.

Prerequisites: ED 362, 363, and 364 or permission of instructor.

**ED 490 Independent Study (2 or 4 credits)
and Research**

A program of directed individual reading and research.

Prerequisite: Permission of the Department of Teacher Education. Such permission will be granted only if a student presents written evidence that a faculty member has consented to supervise his/her study.

ED 497 Apprentice College Teaching (2 or 4 credits)

An elective course open to any well-qualified upperclassman who wins consent of a faculty member to assist in presenting a regular college course to underclassmen. The apprentice should be capable of assuming limited classroom teaching duties.

Prerequisite: Permission of the Department of Teacher Education. Such permission will be granted only if a student presents written evidence that a faculty member has accepted him/her as an apprentice.

HUMAN INTERACTION COURSES

**HI 261 Fundamentals of (2 or 4 credits)
Human Interaction**

Provides an introduction to individual and small group interaction. Consideration is given to interpersonal communication, group processes, group membership, group leadership, techniques of developing and maintaining and helping relationship, decision-making, observation and listening skills, change processes, personal growth processes, and self awareness. The course assists students to develop awareness of their potential and provides preparation to operate more effectively in community service activities. Role playing, demonstrations, video recordings, simulations and other experiential activities constitute a major portion of the instructional program.

**HI 361 Techniques of The (2 or 4 credits)
Helping Interview**

Emphasizes listening and observation skills, establishing mutual trust and acceptance, and providing support in a mutual trust and acceptance, and providing support in a one-to-one relationship to help persons in decision-making and to find success in personal endeavors such as education or employment. Students will learn to recognize applicant's needs for additional supportive services. Includes an introduction to the philosophy, theory and research of the helping relationship. Techniques of instruction include role-playing, simulation, interaction analysis, and experience with actual clients. (NOTE: This course is cross-listed with SCN 305).

Prerequisite: HI 261 or HI 363 or permission of instructor.

**HI 363 Dynamics of Human (2 or 4 credits)
Relationships in Education
and Work Settings**

Deals with interpersonal relationships among students and teachers, employees and supervisors, and peers, in various settings such as: schools, industry, adult training classes, community agencies, government offices, and in groups of teams of co-workers. Introduces sociological and psychological theories of

dynamics of human group behavior which can be applied personally by students in their current or future work relationships. Emphasizes application of these concepts with persons who are being helped to find success in their education and work. (NOTE: This course is cross listed with SCN 202.)

HI 461 Introduction To Counseling (4 credits)

Covers theories and practices in the field of guidance and counseling. An emphasis can be elected in preparation for work with certain groups such as: youth, adults, disadvantaged persons, offenders, persons from a certain culture or ethnic groups, etc. Includes opportunity for simulated and authentic experiences. Requirements include the development of basic competencies.

Prerequisite: HI 361 and HI 363 or permission of instructor.

HI 463 Group Procedures In Helping Relationships (2, 4, 6 or 8 credits)

Includes a study of procedures used in small groups where individuals are helped to better understand themselves and others, to adjust to life situations, and to deal effectively with others in interpersonal relationships. Experience in such a group setting is provided as a major requirement of the course. Students are given an introduction to techniques they may use to provide support and help for others in a group situation. (NOTE: This course is cross-listed with ED 463.)

Prerequisite: HI 363 or permission of instructor.

HUMAN RESOURCES DEVELOPMENT COURSES

HRD 331 Introduction To Community Mental Health (4 credits)

Includes a critical examination of current mental health treatment programs in local institutions, community mental health centers, and family-care programs. Covers the role of social and cultural factors in the cause of mental illness. Introduces roles in the helping process as a member of a treatment team in group and/or individual situations and provides experience in carrying out some facet of a treatment plan under supervision.

HRD 335 Problems of Drug Abuse and Alcoholism (4 credits)

A comprehensive study of the modes of prevention and treatment programs for substance abuse. Readings and reports include basic information about various drugs and alcohol, including history, categories and definitions, misuse, abuse, legitimate use, laws, attitudes and reasons people abuse drugs. Covers materials prepared for drug information education, films, and literature and a review of current research regarding the effects of drug abuse and alcoholism and related social problems. Provides a study of Methodon maintenance programs, support programs such as Synanon, and volunteer paraprofessional services including: hotline services, referral services, and work on a counseling team, employability development team, etc. Reviews legal and ethical practices, confidentiality, etc.

HRD 362 Assessment of Youth And Adults (4 credits)

Concerns an overview of techniques used in the assessment of youth and adults for purposes of deciding upon and implementing educational, occupational, and personal-social goals. Students will be introduced to measurement terminology as well as techniques of test administration and interpretation. Tools

for assessing aptitudes, interests, abilities and attitudes will be studied. Emphasis will be placed upon the synthesis of data in the form of case studies and in case conferences.

**HRD 364 Career Development (2 or 4 credits)
And Community Resources**

Covers sources of occupational, educational and personal-social information and techniques for using guidance information in the helping process. Establishes a repertoire of knowledge about community agencies and resources, manpower programs, educational and on-the-job training opportunities, and labor market trends. Students will gather firsthand information from site visitations as well as through audio visual and printed media.

**HRD 366 Techniques of Human (2 or 4 credits)
Resources Development**

An introductory course intended to provide basic preparation to individuals for work in public service in the emerging field of human resources development. Emphasis is placed upon cooperation among pre-professional and professional workers such as: interviewers, coaches, counselor trainees, manpower specialists, work and training specialists, employment counselors, teachers, and community agency personnel, including employability developmental teams, to assist disadvantaged youth and adults from urban and rural areas and various cultural backgrounds to discover and develop their fullest potential and social usefulness.

**HRD 367 Employability (2 or 4 credits)
Development Procedures**

Covers procedures to assist persons to make a transition from education or unemployment to work and development of skills to seek, obtain, and hold a job. Includes guidance practices to provide support and serve as an advocate for unemployed, underemployed, and disadvantaged persons and an introduction to job development procedures and services.

Prerequisite: HI 361 or HI 363 and HRD 362 or HRD 364 or permission of instructor.

HRD 368 Job Development (2 or 4 credits)

Concerns contact work with employers and educators to develop jobs and training courses for persons who are enrolled in employability development and related manpower training programs and other agency applicants. Stresses appraisal of the needs of employers for persons with certain performance skills, development of on-the-job training programs and related education, and trainee follow-up and support.

Prerequisite: Three courses marked HI or HRD and permission of the instructor.

**HRD 390 Special Project in Human (2, 4, 6 or
Resources Development 8 credits)**

A program of directed reading, research, and study in an aspect of human resources development work. May be elected for independent study or may be taught as a workshop based upon selected topics and issues in the field. The course may be taken more than once, but for no more than a total of 8 credits. Prerequisite: Permission of instructor.

**HRD 490 Internship In Human (8 or 12 credits)
Resources Development**

Provides an opportunity for a culminating learning experience where a student may apply what he has learned in a supervised experience in some phase of human resources development work with youth and adults as an intern in a

community agency program.

Prerequisite: 24 credits in Human Interaction and/or Human Resources Development courses and permission of instructor.

THE GRADUATE PROGRAMS

The School of Education offers programs leading to the degree of Master of Arts in Teaching in the areas of elementary education, guidance and counseling, reading education, and special education for emotionally disturbed children. A program in early childhood education is in the process of receiving final approval.

In addition, the College of Arts and Sciences and the School of Education jointly sponsor secondary education candidates for the degree of Master of Arts in Teaching. Secondary education programs are now available in English and mathematics.

For the complete information, students are urged to consult the Graduate Catalog.

Overview of the Degree of Master of Arts in Teaching in Elementary Education

This program is designed for the elementary school classroom teacher. With the help of his/her adviser, each student plans an individualized program responsible to one's special needs and concerns. There are four areas of instruction from which each student must select the courses that will comprise his/her graduate program. These areas are: curriculum development and organization; diagnosis and prescription; administration and supervision; and support courses (intensive study of specialized phases of elementary school instruction).

Overview of the Degree of Master of Arts in Teaching in Early Childhood Education

Pending approval by the State Department of Education, a program in early childhood education will be offered during the 1973-74 academic year. The program will combine theoretical knowledge with extensive clinical, community, and school practicum settings.

Overview of the Degree of Master of Arts in Teaching in Guidance and Counseling

The guidance and counseling programs are dedicated to the education and training of effective persons to work in helping roles with children, youth, parents, and other adults in schools and community settings. One program in elementary and middle school counseling is currently in operation. This course of study focuses on the emerging and changing development needs of children and prepares teachers and counselors to: build effective learning climates; personalize and humanize the educational process; and assist children to identify, plan, and attain those goals which are consistent with their needs, interests and abilities. A second program is being developed in counseling youth and adults in community settings.

Overview of the Degree of Master of Arts in Teaching in Reading Education

The majority of students enrolled in this degree program are elementary or secondary classroom teachers who intend to remain in this capacity. However, a number of graduates currently occupy positions of responsibility in public and private schools, junior colleges, and universities.

Each student completes a core program which meets standards established by the International Reading Association for the title "reading specialist." In addition, the student has an option of selecting either a general sequence of courses to finish his/her program or a sequence of courses in one of seven specialization sequences. The areas of specialization are: elementary reading; secondary reading; consultation; special education; guidance and counseling; early childhood education; and literature for children.

Overview of the Degree of Master of Arts in Teaching in Special Education

New special education legislation in the State of Michigan is sending children with moderate behavior problems into regular classrooms. Teachers will consequently need special education and counseling skills to work with these students. This program is designed to develop these skills.

Graduates of the thirty-six credit hour program are certified to teach in special education classes for emotionally disturbed, or to serve as a teacher consultant for emotionally dis-

turbed children. By taking a minimum of additional courses, students may also gain approval in reading education or guidance and counseling.

GRADUATE COURSE OFFERINGS

ED 500 Foundations of Reading Instruction (4 credits)

A basic course in the teaching of reading. Reading as a psycholinguistic process is examined. Assumptions which make varying approaches to reading about the learner and about the learning to read process are analyzed. Strategies in word recognition and comprehension are examined and applied. In addition the students in this course will be introduced to significant reading research and how to read and interpret current research.

The course is a combination of lectures, demonstrations, discussions, and application of techniques in teaching reading via role playing techniques. Required of all students in the MAT Reading Program.

Prerequisite: Admission to graduate program.

ED 501 Introduction to The Education of Exceptional Children (4 credits)

This course introduces students to the field of Special Education. Organization of special education programs, types of exceptionalism, growth and development of exceptional children, and community resources are among the topics covered.

Prerequisite: Graduate standing.

ED 502 Skills and Competencies For Teachers of Exceptional Children (4 credits)

This course covers a core of competencies and skills deemed desirable for all teachers of exceptional children. These include identification of basic learning processes; understanding sensory, motor and perceptual processes; evaluation of personality and intellectual deviation; effective classroom management and techniques; and use of equipment and materials.

Prerequisite: ED 501 or permission of instructor.

ED 503 The Educational Philosophy of John Dewey (4 credits)

An examination of the major writings of John Dewey from the perspective of current educational concerns. The logical, psychological, moral, aesthetic and pedagogical dimensions of Dewey's philosophy will be considered, along with Dewey's influence on such contemporary concerns as the open classroom, informal education, and new concepts of the child.

Prerequisite: For graduate students, admission to course in any graduate program; for undergraduate students, PHL 101 or ED 244 or permission of instructor.

ED 504 Literary Portrayals of Educational Encounters (4 credits)

An exploration of adult-youth value conflicts through plays, novels, short stories, dialogues, essays, and personal accounts. Such diverse authors as Hesse, Huxley, Ionesco, Plato, Turgenev, Anouilh, Skinner, Wilder, Kozol, and Dennison may be included, bringing attitude differences dramatically to life, and offering model situations for resolving those differences through educational encounters.

Prerequisite: Graduate standing. (SCI 505)

literature appropriate to each age level can balance the growth of communication skills.

Prerequisite: ED 331 or ED 531 or equivalent preparation in reading instruction.

**ED 536 Teaching Reading To (4 credits)
The Special Child**

A general discussion of the reading process as it relates to slow learners, emotionally disturbed, handicapped, and gifted children. A study of remedial instructional materials is included.

Prerequisite: ED 521 or permission of instructor.

**ED 537 Teaching-Learning Strategies (4 credits)
For Reading And Related
Language Arts Instruction**

This course focuses on a student-centered language arts curriculum which is designed to make current linguistic insights and practices available to teachers at an operational level. Those teaching-learning strategies which are concerned with divergent, elaborative, critical and creative thinking necessary in all aspects of the language arts are of major concern. This course is intended for teachers who are seeking many alternatives or options for providing young learners with ample opportunity to develop expressive as well as receptive language skills.

Prerequisite: Admission to graduate program or instructor's permission.

**ED 538 Reading Development In Junior (4 credits)
& Senior High Schools**

Emphasis is placed on solving problems in the development, improvement, and evaluation of an all-school instructional program in reading.

Prerequisite: Admission to graduate program or instructor's permission.

**ED 540 Theories of Early Childhood (4 credits)
Education**

Designed primarily for teachers of young children, the course analyzes the many diverse contemporary theories of early childhood education and the broader issues such as "special intervention vs. optional maintenance", "intrinsic and extrinsic motivation", "readiness", "structure", "education for future vs. education for immediate needs", "infant education", "daycare models", etc.

Prerequisite: Admission to graduate program.

**ED 542 Applied Developmental Prin- (4-8 credits)
ciples — Early Childhood**

Designed to enable students to understand development of infants and young children and observe the "range of normality" in a variety of experiential settings. Includes knowledge of basic health and safety requirements, nutritional needs for optimum growth and methods for recognizing signs of illness. In depth exploration of the relation of learning processes to principles of development of infants, toddlers, pre-schoolers, and kindergarten children as seen from pediatric, developmental and educational perspectives.

Prerequisite: Admission into graduate program or permission of instructor.

**ED 543 Teacher As Child Advocate (4 credits)
and Adult Educator —
Early Childhood**

The study of the family system in relation to reciprocal adult/child interaction

in the home learning environment and the roles of school and community forces which affect both the home and school. Exploration of the roles of parental and community forces in meeting needs of young children and of issues concerning child advocacy by teachers. Overview of parental practices which affect learning. Includes methods for working with parents, para-professionals, volunteers in the classroom and home, and methods for working with diverse community team members and referral resources for children with special needs.

Prerequisite: ED 540, ED 542 or permission of instructor.

ED 544 Play As A Learning Medium (4 credits)

Role of play in development of logical and creative thought processes and in socio-emotional development, past and present theories of play and games, methods for utilization of play in the early childhood curriculum.

ED 545 Administration and Direction of Early Childhood Programs (4 credits)

This course covers administrative aspects such as budgeting, legislation, rules and regulations, employee concerns. Also includes procedures for developing programs, writing proposals, identifying funding sources. Examination of types of program operation agencies involved in early childhood programs, trends in child care in the community, and practical problems related to direction of centers.

Prerequisite: ED 540, ED 542 or permission of instructor.

ED 546 Workshop In Early Childhood Curriculum (4-8 credits)

Special areas of curriculum — math, science, language, music, art, sensory-motor will be emphasized and methods for development of learning centers in these areas will be stressed. Includes special uses of audiovisual and programmed materials in the learning different terms. May be elected twice.

ED 554 Interaction Laboratory For Teacher Development (4 credits)

This course is designed to acquaint students with the importance of human relations skills in teaching; to provide students with exposure to the kinds of interpersonal problems which arise with pupils, parents, and fellow teachers within a school setting, and to help students acquire a clearer understanding of the flexible line separating personal and professional behavior. The activities of the laboratory involve the student in role-playing, simulated games, and action-oriented problem solving.

Prerequisite: ED 245.

ED 555 Practicum For Teachers of The Urban-Rural Disadvantaged (8 credits)

This is a specialized performance-based, field-centered practicum designed to prepare teachers for urban-rural disadvantaged children, as well as to fulfill supervised internship requirements for Michigan elementary certification. The practicum intern progresses through four developmental phases, gaining higher levels of competencies in the teaching strategist function, teaching research function, behavioral management function, school-community function, and membership role function.

Prerequisite: Open to graduate students enrolled in special projects.

ED 560 Special Problems In Guidance And Personnel Work (2, 4, 6 or 8 credits)

A course dealing with specialized problems in various phases of school guid-

ance and counseling, college student personnel work, or employment counseling. The specific topics will be based upon the clientele and staff needs. The course can be taken more than once, but for no more than a total of 8 credits. It may be elected for independent study.
Prerequisite: Permission of instructor.

**ED 561 Guidance And Counseling (4 credits)
 For Children**

Covers principles, practices, and basic techniques of guidance and counseling which teachers may use in the classroom, and basic understanding of procedures used by qualified elementary and junior high school counselors and other pupil personnel workers. The purpose of the course is to provide teachers with a knowledge of approaches they may use to help children develop in areas such as: self-understanding and a positive self-concept, ability to adjust and work with others, productive learning experiences and achievement, interests and an awareness of opportunity, and attainment of self-direction. The course is intended to serve as an elective for students who have an education major and as a foundations course for students and teachers who wish to consider entering the field of guidance and counseling at the elementary and junior high school level.

Prerequisite: Admission to a M.A.T. program or permission of instructor.

ED 562 Assessment of Children (4 credits)

Covers individual and group analysis techniques used in the assessment of children for curricular planning and instruction, including: the nature and range of human characteristics, appraisal methods for analysis of physical, mental, and social development; techniques for understanding children's special needs, values, self-concepts, attitudes, learning styles and environmental influences. Includes measurement, evaluation, synthesis of case data, and case conference methods.

Prerequisite: Permission of the instructor.

ED 563 Group Procedures In Guidance (4 credits)

Concerns a study of group processes and the role of the counselor in using group procedures in the educational setting with children, parents, teachers, and other significant adults. Includes the use of group guidance materials. Provides opportunities in actual or simulated situations for practice with small groups to help teachers become more skillful in working in their classes. Includes experience as a member of a personal growth group to increase self-awareness of others.

Prerequisite: ED 561 and permission of the instructor.

**ED 567 Workshop In Guidance (2, 4, 6 or
 and Personnel Services 8 credits)**

This course provides an opportunity for teachers, counselors, and administrators, and other personnel to evaluate and develop various aspects of guidance and student personnel programs. The course is offered upon request from school systems or agency personnel for the purpose of providing in-service education for counselors and others from various work settings in personnel services.

Prerequisite: Permission of the instructor.

**ED 570 Advanced Topics In (4 credits)
 Literature For Children**

Recent literature for children will be critically analyzed as part of the literary mainstream. In-depth study of major authors and illustrators, genres, historical periods, and controversial issues will be encouraged. Emphasis will be placed on broadening the student's specific knowledge and appreciation of children's literature and on discovering personally effective ways of helping children to more fully understand and enjoy a variety of literary forms.

ED 571 Children's Books In The (4 credits)
Elementary School Curriculum

The course is designed for prospective teachers who want to know how to incorporate a variety of types of children's reading materials, excluding textbooks, into the elementary curriculum. Locating, selecting, evaluating and organizing children's reading materials (excluding textbooks) will also be covered.

Prerequisite: ED 332 or ED 570.

ED 572 Creative Dramatics (2 credits)

Students interested in learning about ways in which children can be encouraged to use their imaginative and dramatic skills to interpret literature and to create plays, pantomimes, and other creative dramatic experiences will find the course helpful. Students will be required to plan, carry out, and evaluate a creative dramatics session with a group of children.

Prerequisite: ED 332 or ED 570.

ED 573 Storytelling (2 credits)

Students interested in learning how to select, learn and tell stories for children of various ages will have an opportunity to do so. Following classroom lectures, discussions, and practice, students will be required to plan, carry out, and evaluate a story-telling program.

Prerequisite: ED 332 or ED 570.

ED 574 Literature For The (4 credits)
Pre-School Child

Preparation for the selection and use of appropriate books, rhymes, stories, records and filmstrips with pre-school children. Students must be working with pre-school children at the time the course is being taken.

Prerequisite: ED 332 or ED 570 or enrollment in an Early Childhood Education Program.

ED 581 Teaching About Black (4 credits)
Africa In The Public Schools

This course shall include (1) content of both contemporary and historical topics of Black Africa applicable to new social studies programs in elementary and secondary curricula, (2) material evaluation, selection and use of Black African topics appropriate for elementary and secondary use, and (3) organization and development of an instructional unit on Black Africa for elementary and secondary school use.

Prerequisite: Admission to graduate program or permission of the instructor.

ED 582 Play Production For (4 credits)
Secondary School Teachers

This course is designed to aid secondary school instructors in counting effective dramatic productions. All phases of dramatic production, technical, philosophical and economic will be examined. It will be the intent of the course to provide each instructor with a manual detailing specific skills required for implementation of each primary area of play production. This course will allow teachers to broaden the base of their potential teaching options in the field of dramatics.

ED 583 The Middle School (2 or 4 credits)

This course will deal with all aspects of the emerging middle school including organizational patterns, curriculum, psychological factors, philosophical bases, and methodologies. An in-depth analysis of the relationship of this organizational pattern to contemporary educational, social and student needs will be made. A feature of the course will be the utilization of various staff

Depending on the clientele and staff needs, the specific topics may differ from term to term. The course may be taken more than once, but for no more than a total of 8 credits. May be elected for independent study.

Prerequisite: Admission to course in any graduate program or permission of the Department.

ED 591 Ecology of The Classroom (4 credits)

The course deals with the ecological context for learning in classroom, school, and community. The primary task will be to describe, to analyze, and to make inferences about the structure of the ecological environment. These findings will then be related to pupil learning.

Prerequisite: Permission of the instructor or acceptance into any graduate program.

ED 592 Research Techniques in Education (4 credits)

A study of research techniques in the behavioral sciences and education, methods of gathering evidence, elementary statistical concepts in education, research design, etc. Students preparing to start their terminal project will find the course especially helpful.

Prerequisite: Acceptance in a Master's program in Education or permission of the instructor.

ED 597 Oakland University/Greenfield Village Practicum in The Social Studies (4 credits)

This course is a specialized field-centered practicum that is offered to assist teachers in the development and utilization of primary resources for their on-going social studies programs. The special nature of the course stems from its utilization of the facilities and resources of the world renowned Henry Ford Museum and The Greenfield Village, as well as the Oakland University on-campus facilities and those of other significant community resources. It is a **year-long** program which provides meaningful opportunities for participants to study and become actively involved in cause and effect relationships of inventions, home styles, living standards, arts and crafts and technology as they relate to social studies instruction. Due to the innovative structure of the course, it is limited to not more than forty-five students. A laboratory fee of \$25 will be assessed in order to cover the added cost of materials and supplies used by the participants.

Prerequisite: ED 587 (SS 570) or permission of the instructors.

ED 601 History of Education (4 credits)

A study of the cultural forces (primarily in the West) as they shaped, and were shaped by, the education of the young. Characteristic patterns of educational institutions, changing conceptions of curricula, dominant social and philosophic ideas concerning education, and significant contributions by individual educators represent some of the professional topics which are discussed in their historical settings.

Prerequisite: Admission to 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 systemic philosophers, logical relationships between various philosophical and educational positions are among the topics considered.

Prerequisite: Admission to graduate program.

ED 603 Comparative Education (4 credits)

An analysis of education and its relationship to social and economic change

**ED 624 Directed Teaching (6 credits)
In Special Education**

This is a supervised full-time teaching experience in classrooms corresponding to the student's concentration in special education. Those qualifying for exemption from the supervised teaching requirement in the certification code may not take this course.

Prerequisite: Acceptance to degree candidacy in a Master's program in Special Education and approval by the director of the special education program.

**ED 627 Physical and Social (4 credits)
Competencies of
Handicapped Children**

The course will identify the physical and social competencies necessary for mentally handicapped children to become productive citizens. Work skills and vocational opportunities will also be explored.

Prerequisite: Admission to graduate program in special education or permission of the instructor.

ED 630 Seminar In Reading (4 credits)

The validity, reliability, results, and conclusions of research and other literature in selected areas of reading and language arts will be carefully analyzed. The course will be conducted in traditional seminar fashion. Since this course is a seminar, enrollment will be limited.

Prerequisite: Two courses in reading instruction and permission of the instructor.

**ED 631 Problems In Reading (4 or 8 credits)
Instruction**

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 for this course once or twice up to a total of 8 credits.

Prerequisite: Admission to course in a Master of Arts in Teaching program and at least one previous course in reading instruction.

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

A laboratory course concerned with analysis and study of factors which contribute to or precipitate reading disabilities in elementary and/or secondary school pupils. The course includes selection and administration of both informal and standardized tests and also deals with the preparation and evaluation of case reports.

Prerequisite: Admission to course in a Master of Arts in Teaching program and at least one previous course in reading instruction.

**ED 633 Correction of Reading (4 credits)
Disabilities**

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 Master of Arts in Teaching program and at least one previous course in reading instruction.

ED 634 Advanced Study of Classroom (4 credits)
Strategies In An Integrated
Language Arts Curriculum

The theory, research and practice concerned with instructional strategies in all areas of the curriculum which serve to promote the development of reading-language abilities will be studied. Particular attention will be given to a process curriculum and current linguistic concepts which make adequate provisions for a range of language inducing and language producing options. Participants will be expected to prepare materials which will cause young learners to engage in experimenting, examining, organizing, systematizing, analyzing and evaluating the reading-language abilities they employ. Attention also will be given to a study of changes in the language behavior of young people for the purpose of evaluating linguistic maturation.

Prerequisite: ED 537 recommended but not required.

ED 635 Organization of Reading (4 credits)
Programs

This course is designed for Master's candidates in reading who plan to become reading specialists or reading consultants. Course topics include (1) conducting a needs assessment of the language arts curriculum, (2) program planning in reading, (3) guidelines for staff development (ongoing and long-range inservice), (4) analyzing reading materials, (5) defining the reading consultant's role, and (6) strategies for working with classroom teachers in their classroom. Course requires field work in a school, preferably where the graduate student is presently employed.

Prerequisite: ED 632, ED 633 or permission of instructor.

ED 661 Techniques of Counseling (4 credits)

Gives a review of counseling theory and practice and provides simulated and actual pre-practicum experiences in the counseling process with young people or adults. Includes preparation for various specialties such as elementary school counseling, career and employment counseling, and youth or adult human resources development counseling.

Prerequisite: Admission to the program in Guidance and Counseling or permission of instructor.

ED 664 Consultation In (4 credits)
Pupil Personnel Work

Deals with techniques of consultation used by school counselors to help teachers, parents, and administrators to help children. Emphasis is placed on providing support for teachers of regular classes to enhance learning and adjustment of children and in the effective utilization of various school pupil personnel specialists, persons in the community, and development of good relationships among the significant adults in the life of each child. The course includes involvement in this work in an actual school setting and the adjacent community.

Prerequisite: Admission to a M.A.T. Program or permission of instructor.

ED 665 Guidance Information (4 credits)
and Career Development

Emphasizes the process of providing guidance information and of helping elementary and junior high school children develop self-understanding in regard to their interests, abilities and opportunities for education and work, as a basis for decision making. A field experience applying these concepts will be a course requirement. Covers vocational development theory, psychological and sociological aspects of career choice, and systematic approaches to provide educational, occupational, and personal-social information.

Prerequisite: Admission to Program in Guidance and Counseling or permission of instructor.

PE 121 Tennis and Volleyball (2 credits)

To develop awareness of the facilities, equipment, supplies, courtesy, rules and strategy. Includes participation in the basic and advanced skills of tennis and volleyball.

PE 151 Golf and Badminton (2 credits)

To develop awareness of the facilities, equipment, supplies, courtesy, rules and strategy. Includes participation in the basic and advanced skills of golf and badminton.

PE 152 Handball, Paddleball and Squash (2 credits)

To develop awareness of the facilities, equipment, supplies, courtesy, rules, and strategy. Includes participation in the basic and advanced skills of handball, paddleball and squash.

PE 161 Beginning Gymnastics (2 credits)

To develop awareness of the facilities, equipment, supplies, and safety rules. Includes participation in the basic fundamentals in conditioning, tumbling, stunts and apparatus.

PE 162 Advanced Gymnastics (2 credits)

To develop awareness of the facilities, equipment, supplies, and safety rules. Includes participation in advanced gymnastic skills and routines on the various items of apparatus.

PE 163 Movement Education, Low Organized Games and Leadup Activities To Movement Skills (2 credits)

Perceptual-Motor Development and Sensory-Motor Development Activities and their relevancy to movement in low organized games and leadup activities and games for basic sports skills.

PE 171 Elementary Dance and Movement (2 credits)

Introduction to elementary forms of dance and movement. space, time and energy through movement exploration and improvisation. Student gains awareness of his own body and its relationship to the environment through movement.

PE 172 Advanced Dance and Movement (2 credits)

More advanced course in dance movement covering various dance forms such as primitive, ballet, modern dance and period styles. Movement improvisation and exploration leading to compositional styles of dance. Student learns to choreograph movement into an artistically valid form.
Prerequisite: PE 171 or equivalent required.

PE 180 Judo (2 credits)

To develop awareness of the facilities, equipment, supplies, safety rules and procedures. Includes participation in basic and advanced judo skills.

PE 182 Karate (2 credits)

To develop awareness of the facilities, equipment, supplies, safety rules and procedures. Includes participation in basic and advanced Karate skills.

PE 231 Teaching and Coaching Football (2 credits)

Philosophy, theory and practice in the fundamental skills of the game, mental and physical conditioning, training, offensive and defensive systems, and strategy, and setting up practice schedules and drills.

PE 233 Teaching and Coaching Soccer (2 credits)

Philosophy, theory and practice in the fundamental skills of the game, conditioning, training, offensive and defensive systems, strategy, and setting up practice schedules and skill drills.

PE 243 Teaching and Coaching Golf, Bowling, and Archery (2 credits)

Philosophy, theory and practice in basic and advanced skills, with strategy of play, including setting up practice schedules and drills.

PE 251 Teaching and Coaching Cross-Country Track and Field (2 credits)

Philosophy, theory and practice in basic and advanced skills of the various events, with emphasis on conditioning, training, form and technique.

PE 261 Teaching and Coaching Gymnastics (2 credits)

Philosophy, theory and practice in basic and advanced skills of the various apparatus and tumbling events with emphasis on conditioning and training, form and technique.

PE 263 Teaching Physical Education and Play Activities For Children Pre-School Through Grade 3 (2 credits)

Philosophy, theory and practice in activities compatible with the felt needs, growth and development patterns, and possible interests at various levels for classroom, Multi-purpose room, gymnasium and playground.

PE 264 Teaching Physical Education and Recreation Activities For Children Grades 4, 5 and 6 (2 credits)

Philosophy, theory and practice in activities, compatible with the felt needs, growth and development patterns, and possible interests with emphasis on low organized games and leadup activities for team games.

PE 265 Teaching Physical Education, Recreation and Play Activities For The Atypical Individual (2 credits)

Philosophy and theory of various approaches and techniques. Planning and organizing and implementing activities compatible with the varying abilities and interests of atypical children.

PE 271 Teaching Dance and Movement (4 credits)

Theory, approaches, techniques of creative dance and movement for children and teenagers with emphasis on creativity in presenting movement studies and an opportunity for teaching children.

PE 272 Teaching Dance Composition and Production (4 credits)

Theory and study of choreography through exploration, improvisation, and use of compositional forms to include an actual production.

PE 281 Sports Officiating For Men and Women (4 credits)

Philosophy and theory of sports officiating with study of rules and officiating procedures and actual participation in officiating situations in baseball, basketball, football, swimming, track, tennis and volleyball.

PE 291 Recreation Programming and Leadership For All Ages (2 credits)

Philosophy and theory of recreation and play, including facilities, equipment and supplies, with emphasis on quiet and active events and games with an opportunity to give leadership in same.

PE 293 The Psychology and Sociology of Sports and Coaching of Sports (2 credits)

History and theory of the value of sports and the potential value of sports as related by philosophers, psychologists, psychiatrists, medical doctors, educators, coaches and others to our personal, community, state, national, and international participation. The ramifications and problems of coaching various age groups and sexes in individual and team sports.

PE 301 The Physical Education, Play, Dance, and Recreation Program For The Elementary School (4 credits)

Philosophy and theory of the title items in the total educational program of the elementary school through reading, discussion and evaluation of curriculum and course of study materials of the State's Department of Education or Public Instruction and state school districts, plus interaction in lecture and discussion with area administrative, supervising, and teaching personnel.

PE 312 The Organization, Promotion and Administration of Aquatic Programs and The Operation and Management of Aquatic Facilities (4 credits)

Philosophy and theory of the title items through reading and discussion of articles, promotional pamphlets, State Department of Health rules and regulations, Textbooks; guest operators' lectures and discussion; observation trips; and actual participation in management and operation approaches and procedures.

SCHOOL OF ENGINEERING

OFFICE OF THE DEAN:

PAUL R. PASLAY, DEAN

HOWARD R. WITT, ASSISTANT DEAN FOR
UNDERGRADUATE PROGRAMSKEITH R. KLECHNER, ASSISTANT DEAN FOR
GRADUATE PROGRAMSKENNETH A. MEADE, ASSISTANT TO THE DEAN
OF ENGINEERING**PROFESSORS:** Benjamin F. Cheydleur; David H. Evans; William G. Hammerle; Richard E. Haskell; John Carroll Hill; Joseph D. Hovanesian; Keith R. Klechner; Paul R. Paslay, Howard R. Witt**ASSOCIATE PROFESSORS:** David E. Boddy; Robert H. Edgerton; Glenn A. Jackson; Gilbert L. Wedekind; Tung H. Weng; Michael J. Wozny**ASSISTANT PROFESSORS:** Donald R. Falkenburg; Ratan K. Gouila**ADJUNCT PROFESSORS:** John G. Givers; Ralph M. Grant; Kenneth A. Meade; Keeve M. Siegel**Board of Visitors**

The Board of Visitors for the School of Engineering are among the leaders of industry in southeast Michigan. They assist the School of Engineering in educating students to meet the rapidly expanding requirements in the technical world. The Board is available as a body or individually for consultation and advice on such matters as curriculum, facilities, equipment requirements, special subjects, and long-range planning.

Members of the Board are: Dr. Paul F. Chenea, Vice President Research Labs., General Motors Corporation; Dr. Robert R. Johnson, Vice President of Engineering, Burroughs Corporation; Mr. H. L. Misch, Vice President, Engineering Staff, Ford Motor Company; Dr. E. N. Petrick, Chief Scientist/Technical Director of Laboratories, U.S. Army Tank

Automotive Command; Mr. C. B. Sung, Vice President and Group Executive Advanced Technology Group, The Bendix Corporation; Mr. R. Jamison Williams, Director, Lear Siegler, Inc.; Mr. F. J. Winchell, Vice President of Engineering Staff, General Motors Corporation.

Undergraduate Programs

The School of Engineering offers two undergraduate degree programs, one in engineering and the other in computer and information science. Requirements for the program in computer and information science are given on page 339.

In addition, concentrations are offered in Computer and Information Science and Public and Societal Systems. These concentrations are available to students throughout the university. Further details are provided under Interdepartmental Programs on page 244.

UNDERGRADUATE CURRICULUM IN ENGINEERING

The engineering program at Oakland University is of an interdisciplinary form and is designed to educate students to handle the problems of today's industrial based society. Graduates are prepared to enter the traditional fields of product design, development, manufacture, sales, service and systems analysis, the newer areas of application such as transportation and pollution control, or to continue their education through graduate study. A growing number of students also find that their undergraduate engineering education provides excellent preparation for careers such as business, law, and medicine.

Traditionally, engineering schools have been organized around specialties such as civil, electrical, mechanical and chemical engineering. In the past, these departments had a well-defined job to do and there continues to be a demand for their graduates with rather highly specialized interests. However, today's engineering is becoming much more interdisciplinary in nature and is largely concerned with applications of engineering principles to the solution of problems that do not fit in a single specialized category.

Oakland's engineering program is organized as a unified functional approach to modern problems. The functional approach involves consideration of all the operational requirements of the situation being studied and integration of the various areas of study that may contribute to its solution.

The program contains a strong liberal arts component. Human factors involved in man's use of technology as well as those human values affected by technological progress must be understood, thus, the engineering student at Oakland is required to select courses in designated areas of liberal arts to complement the technical courses. Included are courses aimed at improving skills in effective oral and written communication.

The curriculum places particular emphasis on the fundamentals of science and mathematics as well as engineering. During the freshman and sophomore years, each engineering student takes work in the calculus and the physical sciences as a foundation for later study. In the final two years, students round out their program by electing courses from designated groups in the life and physical sciences.

Starting in the first semester of the freshman year, each student takes a series of ten basic (core) engineering courses ranging from an introduction to engineering design, through thermodynamics and electronics to the mechanics of materials. Computers are extensively applied in these courses and laboratory work is an essential part of each. The core program of technical courses in mathematics, science and engineering provides both the solid academic base essential to every well prepared engineer and insight into the various areas of engineering application.

The schedule is arranged so that a student takes at least one engineering course each semester, starting in the freshman year. This early introduction to engineering provides career motivation and alleviates concentration of technical courses late in a student's program.

Because of the impact of computers on engineering, Oakland's program ensures that each engineering student has access to computers and is trained in their application to engineering problems. A required course in programming and problem solving is taken in the freshman year. A Burroughs B5500 time shared machine, with remote terminals located around the campus, is available for student use. The School of Engineering has its own IBM 1130 machine for use by students in more advanced courses. This machine along with an EAI 690 analog computer may be operated in hybrid mode.

About the middle of the junior year each engineering student, in consultation with his or her faculty adviser elects an advanced course sequence to meet career objectives. Twelve hours of credit in 400 level courses are required to make up this sequence. Additional 400 level courses may be taken if the student so elects. By means of these courses the

student gains the understanding, self-reliance and maturity to approach the practical problems that confront a practicing engineer. Regular advanced courses at the 400 level are available in such areas as electronics, control systems, computer science, coherent optics, materials and the thermal sciences. The Senior Engineering Project (EGR 409) is elected by many seniors as a part of their advanced sequence. In this course, the student and his or her professor agree upon a design project, the schedule for completion, the cost of materials and labor involved, and the number of credits to be earned by the student.

Special topics courses (EGR 405) are also available to give the student opportunity for further indepth study in areas of particular interest. By arrangement with other departments engineering students may also study advanced chemistry, nuclear physics, mathematical analysis or business administration. This advanced work may take the form of formal courses, seminars, experimental laboratory work or independent study projects lasting as long as two semesters.

ACCREDITATION

The undergraduate engineering program of Oakland University has been fully accredited by the North Central Association of Colleges and Secondary Schools and by the Engineers' Council for Professional Development, which is the official accrediting agency for the engineering profession in the United States and Canada.

PREPARATION FOR ADMISSION

Entering Freshmen

Entering freshmen planning to major in engineering should present at least three years of high school mathematics, including one-half unit of trigonometry. Additional high school courses in mathematics, the laboratory sciences, and English are most desirable. Preparation in elementary drafting and machine shop practice is useful but not necessary.

Transfer Students

Courses in mathematics, English, and the physical sciences essential to the study of engineering are available in many liberal arts colleges and community junior colleges. Often these are offered as a part of a complete two-year program designed to meet the requirements for study of engineering at the professional level in other colleges and universities.

Students with any amount of college credit will be considered for transfer admission. However, since the engineering program at Oakland University is based on a strong foundation in mathematics and the physical sciences, a student planning to transfer into it should carefully consider the advantages of completing such basic pre-engineering programs before applying for transfer.

As many as possible of the following credits should be presented for transfer: analytic geometry and calculus including linear algebra and differential equations (four courses); introductory college physics covering mechanics, electricity and magnetism, heat, wave motion and optics and using the calculus in its instruction (two courses); college chemistry including laboratory (one or two courses). Other credits presented in mathematics, science, or engineering will be evaluated with reference to courses required for graduation in the engineering curriculum at Oakland University. Technician course credits are not generally applicable to these requirements. Students must have a grade of "C" or better in each course presented for transfer credit.

Students planning to transfer are encouraged to accumulate equivalents of certain general education requirements of the Oakland University engineering program outlined on p. 325, but not at the expense of the mathematics and physical science requirements outlined in the preceding paragraph. Generally community college graduates with the associate in arts degree have satisfied the general education requirements of the School of Engineering.

See p. 9 for other information regarding admission of transfer students.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE WITH A MAJOR IN ENGINEERING

A student with a major in engineering must meet the following requirements in order to graduate:

1. Have completed at least 128 credits.
2. Have completed 32 credits at Oakland University. At least 16 of these credits must be in engineering.
3. Have taken the last 8 credit hours needed to complete baccalaureate requirements in residence at Oakland University.

4. Have a cumulative grade point average in courses taken at Oakland University of at least 2.0.
5. Have demonstrated writing proficiency by meeting the university standard in English Composition.
6. Have completed the general education requirement specified by the School of Engineering (24 credits).
7. Have completed the engineering core program, which consists of EGR 101, 172, 215, 216, 225, 241, 326, 344, 345, and 361 (38 credits).
8. Have completed the science and mathematics core program consisting of CHM 104 (or CHM 114 or CHM 124); CIS 180; MTH 154, 155, 254, and 255; and PHY 151, 152 and 158 (34 credits).
9. Have completed the elective package which consists of:
 - (a) 24 credit hours of directed electives distributed over three groups:
 - Group I — At least 12 credit hours in 400 level courses chosen to meet career objectives and **approved by the student's adviser.**
 - Group II — At least 4 credit hours chosen from the approved list of courses in Life, Environmental and Social Sciences.
 - Group III — At least 4 credit hours chosen from the approved list of courses in Mathematics and Physical Sciences.
 - (b) 8 credit hours of free electives.
10. Have attained a cumulative grade point average of a least 2.0 in the engineering core courses and the 400 level elective courses.
11. Have completed an application for degree card at the Office of the Registrar.
12. Be in substantial compliance with all legal curricular requirements.

Proficiency Testing

The term "complete" as used above in stating the degree requirements means either to establish credit in a course by earning a passing grade in the course, by passing a competency examination or by receiving transfer credit from another institution. In certain circumstances a course requirement may be formally waived by a successful Petition of Exception to the Committee on Instruction and Appeals of the School of Engineering. Engineering students may obtain Petition of Exception forms from the office of the Dean of the School of Engineering.

Writing Proficiency

Students in engineering must demonstrate proficiency in writing by passing an essay test prepared and graded by the Department of Learning Skills. Freshmen will have an opportunity to take the test before commencing their first semester. If a student passes the test no further course work in English Composition will be required. Students not achieving the proficiency standard will be counselled to take certain English Composition courses offered by the Department of Learning Skills prior to another attempt at the essay test.

Transfer students will be deemed to have met the writing proficiency standard upon presentation of two college level courses (at least 6 credits) in English Composition.

GENERAL EDUCATION

Oakland University requires all undergraduates in degree programs to share in a series of courses distributed so as to provide a broadening intellectual experience in liberal education.

To satisfy the general education requirement students with a major in engineering must:

1. Complete 24 credit hours in General Education courses. Up to eight hours in English Composition courses may be presented as part of the 24 credits in General Education.
2. Complete at least four credit hours in three of the four designated field groups, and at least eight credit hours in one of the field groups. The field groups are Arts, Letters, Social Science and Area Studies. Academic Units sponsoring the field groups are:

Arts

Art
Music
Theater

Social Sciences

Economics
Economics and Management
Political Science

Letters

*Classics
English
History
Modern Languages and Literatures
Philosophy and Religion
(*Literature courses in translation or in the foreign language)

Area Studies

Interdepartmental Committee on Area Studies (African Studies, East Asian Studies, South Asian Studies, Latin

Psychology
Sociology/Anthropology
Speech Communication
Environmental Studies 151
Education 244, 245
Social Studies 100

American Studies, Slavic
Studies)

It is also possible for engineering students to meet the general education requirements by enrollment in Allport College or New-Charter-College. Engineering students taking one of these latter options, however, may find they need more than eight semesters in which to meet the requirements for the degree of Bachelor of Science.

DIRECTED ELECTIVES

The following courses are approved as directed electives for students in engineering:

Life, Environmental & Social Sciences

Biology courses numbered
111 and higher
Environmental courses num-
bered 181 and higher
ECN 216, 217 and Economics
courses numbered 300 and
higher
Management courses num-
bered 300 and higher
Political Science courses
numbered 221 and higher
Psychology courses num-
bered 220 and higher
Anthropology and Sociology
courses numbered 200 and
higher

Mathematics & Physical Sciences

All Chemistry courses except:
CHM 104, 114, 124 and 191.
MTH 226 and mathematics
courses numbered 325 and
higher.
Physics courses numbered
317 and higher.

CAREER PREPARATION IN ENGINEERING

The engineering program at Oakland University is designed to prepare students for the maximum possible latitude in the choice of industrial careers; it also prepares students who wish to enter outstanding graduate schools. Serving both these goals, the engineering core program and advanced electives combine to form an overall program at Oakland University that is equivalent in scope and depth to the typical requirements in specialized curricula in other fine schools

of engineering. The School of Engineering at Oakland University, however, does not force a student to make a premature choice of career specialization. The student, in consultation with his or her adviser, selects a schedule of advanced elective courses in the area of his or her choice.

Career specialization in areas such as bio-engineering and engineering chemistry normally requires advanced work in a department outside of engineering. The advanced elective package may be used outside of engineering to pursue such specializations with the consent of the student's adviser. The student should note, however, that he or she will probably have to use directed and free electives to obtain the prerequisites for advanced work in these areas.

Engineering students interested in a medical or dental career should complete the concentration in pre-medical studies. Further details are given under Inter-departmental programs on page

OPTIONS

Listed here for guidance are some of the typical options available to engineering students.

Computer Science

Computer science consists of the design and abstract modeling of information processing systems for application to modern problems. The design of computer systems includes the development of internal machine operating procedures and of new computer languages as well as design of the physical components. These three subjects are therefore generally referred to as computer architecture, software, and hardware, respectively.

Students majoring in engineering and interested in computer science may pursue an option in this area by choosing advanced electives such as Applied Numerical Methods (CIS 480), Hybrid Computation and Simulation (EGR 481), Switching Theory (EGR 485) and Computer Architecture (EGR 486). The Concentration in Computer and Information Science is also available to engineering students.

Electrical Engineering

The student preparing for specialization in electrical engineering should elect Signal and System Analysis (EGR 425) and Advanced Electronics (EGR 426) and should give consideration to further work in Communication Systems (EGR 427), Automatic Control Systems (EGR 431), or Electric and Magnetic Fields (EGR 445).

Systems Engineering

The systems engineer develops automatic controls for a wide variety of physical processes. To the core program the student in this field should add Signal and System Analysis (EGR 425), Automatic Control Systems (EGR 431), Analysis of Nonlinear Systems (EGR 432), and Modeling of Ecological Systems (EGR 405).

Fluid and Thermal Sciences

Engineers working in the fluid and thermal sciences area are concerned with the analysis and design of systems associated with the conversion and transport of mass, momentum, and energy. In addition to the core program, a student interested in this field of engineering should consider electing Thermal Energy Transport (EGR 448), Fluid Transport (EGR 449), and Fluid and Thermal Systems (EGR 453).

Mechanical Engineering

The student wishing to enter mechanical engineering should elect Thermal Energy Transport (EGR 448), Fluid Transport (EGR 449), Advanced Mechanics of Materials (EGR 461) as well as courses in systems or energy conversion, depending upon his or her particular interests.

Materials Engineering

To the materials courses in the core program, students in materials engineering should consider adding courses in Modern Physics and in chemistry. Advanced work in electronic properties of materials and mechanical properties of materials is available through Electronic Properties of Materials (EGR 472), Solid State Electronic Devices (EGR 473), and Mechanical Properties of Materials (EGR 462).

Coherent Optics

As preparation for a career in coherent optics the student should elect Signal and System Analysis (EGR 425), Electric and Magnetic Fields (EGR 445), and Coherent Optics (EGR 450).

Energetics

The student preparing for a career involving such applications as plasma engineering, magnetohydrodynamics, ion propulsion, and fuel cells should add to the core program Electric and Magnetic Fields (EGR 445) and Direct Energy Conversion (EGR 454).

Environmental Engineering

Specialization in environmental engineering may be achieved through environmental science electives, Environmental Engineering (EGR 415), Senior Engineering Project (EGR 409) and through cooperation with the departments of Biological Sciences and Chemistry.

Engineering Management

Engineering students interested in technical sales and technical management should elect Special Topics courses (EGR 405) in Operations Research and in Engineering Probability and Statistics. In addition, in choosing their directed and free electives they should consider Applied Statistics (MTH 226) and courses offered by the School of Economics and Management including Microeconomic Analysis (ECN 216), Macroeconomic Analysis (ECN 217) and Management Information and Control Systems I & II (MGT 200 and MGT 210).

Bio-engineering

Biological engineering is one of the rapidly developing frontiers of engineering. To pursue the bio-engineering option students should take Physiology (BIO 221) or Histology (BIO 223), and Elementary Biophysics and Cellular Biochemistry (BIO 225, 226) as preparation. Advanced work may be taken through Special Topics (EGR 405) and in cooperation with the Department of Biological Sciences.

Engineering Chemistry

Options in physical chemistry, biochemistry, and environmental chemistry are available to students interested in an engineering chemistry specialization. Since the options do not all have the same prerequisites interested students are urged to consult their advisers early in their program to plan their electives.

Other Fields

Many fields of student interest such as nuclear engineering, for example, are primarily areas of graduate specialization. The program at Oakland University gives excellent preparation for these fields. Some areas of undergraduate specialization such as mining engineering and textile engineering are not offered at Oakland University. The prospective student should consult the Assistant Dean of Engineering for Undergraduate Programs on the availability of preparation for any particular field of interest.

PLAN OF STUDY

To assure orderly progress towards satisfying degree requirements each engineering student who has earned more than 56 credits is encouraged to fill out a Plan of Study. The Plan of Study form is a timetable of courses to be taken for undergraduate credit. It is usually submitted during the semester in which the student completes 56 credits. Transfer students should submit a Plan of Study at the time they enter Oakland, regardless of the number of credits earned. The forms are completed by the student in consultation with his or her adviser, and they are then approved by the Dean's Office. Acceptance of the Plan of Study indicates approval by the School of the student's program. In rare cases students who failed to seek advisers concurrence of their program or fill out a Plan of Study have encountered difficulties in completing the degree requirements on schedule.

A TYPICAL ENGINEERING PROGRAM*

Semester 1

English Composition or
Distribution Requirement
EGR 101
MTH 154 or 134
CHM 104, 114, or 124

Semester 3

Distribution Requirement
EGR 215
MTH 254 or 155
PHY 151

Semester 5

Distribution Requirement
EGR 225
EGR 241
MTH 255 or Free Elective***

Semester 7

EGR 344
EGR 361
Group 1 Elective*
Directed Elective**

Semester 2

English Composition or
Distribution Requirement
EGR 172
MTH 155 or 154
CIS 180

Semester 4

Distribution Requirement
EGR 216 (2 credits)
MTH 255 or 254
PHY 152
PHY 158 (2 credits)

Semester 6

Distribution Requirement
EGR 326
EGR 345
Directed Elective**

Semester 8

Group 1 Elective*
Group 1 Elective*
Directed Elective**
Free Elective***

* The schedule listed for the last four semesters is suggestive only. Each student in consultation with his adviser will develop a program to meet graduation requirements and the individual needs and interests of the student.

- * Group 1 — 400 level courses
Group 2 — Environmental, Life and Social Science
Group 3 — Mathematics and the Physical Sciences
- ** Directed Elective — at least one from Group 2, one from Group 3 and the third from Groups 1, 2 or 3. Non-Science and Non-Mathematics Electives in Group 2 may be used to satisfy Distribution Requirements.
- *** Free Electives — may be chosen from Groups 1, 2 or 3 or from any other credit courses offered by the University.

REGULATIONS GOVERNING COURSES

1. A course sequence joined by a hyphen (e.g., MTH 154-155) must be taken in the order indicated. The first course in such a sequence is regarded as a prerequisite to that following. A department or school has, however, the right to waive these and any other prerequisite course requirements.
2. Course numbers separated by commas (e.g., HST 214, 215) indicate related courses, which may be taken in any order. Departmental or program requirements may govern the order in certain cases, however.
3. University Courses and courses numbered 100 to 299 are introductory or intermediate undergraduate courses. Courses numbered 300 to 499 are advanced courses primarily for undergraduates.
Courses numbered 500 and above are primarily for graduate students.
4. The Registrar reserves the right to cancel any course in which there is insufficient registration.

UNDERGRADUATE COURSE OFFERINGS IN ENGINEERING

Note: Engineering courses other than EGR 005, 108 and 111, may be used to satisfy the Natural Science distribution requirement for students in the College of Arts and Sciences.

EGR 005 Pre-engineering Topics (4 credits)

Graphical data reduction, statistics, economics, energy, and thermodynamics as well as human factors and information concepts are applied to the solution of engineering design problems. Offered in the Fall Semester and Summer Session.

EGR 101 Introduction to Engin- (4 credits) **eering Design (Core)**

Graphical data reduction, statistics, economics, energy, and thermodynamics as well as human factors and information concepts are applied to the solution of engineering design problems. Offered in the Fall Semester.

EGR 108 Drawing (2 credits)

Introduction to the use of drafting instruments and drafting procedures. Geometric construction, geometric projection, dimensioning, tolerancing and graphical symbols. Offered in the Winter Semester.

Prerequisite: Consent of the instructor.

EGR 111 Shop Practice (2 credits)

Introduction to basic machining principles and machine shop techniques, use of lathes, milling machines and other power machines. Emphasis is on practical experience. Offered in the Fall Semester.

Prerequisite: Consent of the instructor.

**EGR 172 Properties of (4 credits)
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. Offered in the Fall and Winter Semesters.

EGR 205 Engineering Topics (4 credits)

Introductory and intermediate study in special areas. May be taken more than once. Offered in the Fall and Winter Semesters.

EGR 209 Engineering Project (2 or 4 credits)

Introductory work on laboratory projects; topics to be chosen by the student in consultation with an instructor. May be taken more than once. Offered in the Fall and Winter Semesters and in the Spring and Summer Sessions.

EGR 215 Statics and Dynamics (Core) (4 credits)

A vector treatment of mechanics which includes particle statics, equilibrium of rigid bodies, analysis of elements, kinematics, and kinetics of particles and rigid bodies, applications of dynamics to machine elements, analytic solutions of dynamical systems. Offered in the Fall and Winter Semesters.

Prerequisites or corequisites: MTH 154 and PHY 151.

EGR 216 Dynamics (Core) (2 credits)

A vector approach to the kinematics and kinetics of particles and rigid bodies. Analytical and numerical solutions of dynamical systems. Offered in the Fall and Winter Semesters.

Prerequisite: EGR 215.

**EGR 225 Lumped-Parameter (4 credits)
Linear Systems (Core)**

A unified approach for steady-state and transient analysis of electrical, mechanical, fluid, and thermal lumped-parameter linear systems. Network elements and formulation procedures for differential equations. Analogies, phasors, impedance concept, natural and forced behavior, resonance, complex frequency plane, Laplace transforms, frequency response, network theorems. Use of analog and digital computers to solve differential equations for these systems. Offered in the Fall and Winter Semesters.

Prerequisites: EGR 216, PHY 154, and MTH 155.

EGR 241 Thermodynamics (Core) (4 credits)

Introduction to fundamental concepts, thermal energy, thermodynamic properties and equilibrium, basic physical laws of thermodynamics; entropy and its consequences, reversible energy transfers in both open and closed systems; application of thermodynamics to systems involving energy conversion and transport. Offered in the Fall and Winter Semesters.

Prerequisites: CHM 104, 114 or 124.

Prerequisite or corequisite: MTH 254.

EGR 326 Electronic Circuit (4 credits)
Design (Core)

Analysis and design of solid-state electronic circuits. Non-linear dissipative characteristics, large-signal analysis of amplifiers, small-signal analysis of active two ports, voltage amplification, transducers, feedback. Offered in the Fall and Winter Semesters.

Prerequisite: EGR 225.

Prerequisite or corequisite: MTH 254.

EGR 344 Fields and Waves (Core) (4 credits)

Introduction to distributed parameter systems and wave phenomena, transmission lines, scalar and vector waves, interference and diffraction, Fourier analysis, introduction to the electromagnetic field. Offered in the Fall and Winter Semesters.

Prerequisite: EGR 225.

EGR 345 Introduction to Fluid and (4 credits)
Thermal Energy Transport (Core)

Fundamentals of fluid mechanics, properties of fluids, conservation principles; viscous and inviscid flow; laminar and turbulent flow; boundary layer theory; basic concepts of heat transfer; fundamental modes: conduction, convection, and thermal radiation; applications to problems of engineering interest. Offered in the Fall and Winter Semesters.

Prerequisite: EGR 241.

EGR 361 Mechanics of Materials (Core) (4 credits)

An introduction to the mechanics of deformable bodies; the distribution of stress and strain in beams, shafts, columns, pressure vessels, and other structural elements. Yield and fracture criteria of materials with applications to design. Experimental and computer-generated solutions to complex stress analysis problems, including laboratory use of strain gages photo-elasticity, etc. Offered in the Fall and Winter Semesters.

Prerequisites: EGR 215 and MTH 155.

EGR 400 Engineering Seminar (1 credit)

Lectures and discussions conducted by members of the faculty, graduate students, and invited speakers from industry and other universities. Various topics will be covered, but emphasis will be on current research interests of the School. May be taken for a maximum of 2 credit hours. Offered in the Fall and Winter Semesters.

EGR 405 Special Topics (4 credits)

Advanced study in special areas. May be taken more than once. Some topics recently have included engineering probability and statistics, bio-systems engineering and modeling of ecological systems. Various offered in the Fall and Winter Semesters.

EGR 409 Senior Engineering (2, 4, 6 or
Project 8 credits)

Independent work on advanced laboratory projects; topics to be chosen by the student in consultation with an instructor. May be taken more than once. Offered in the Fall and Winter Semesters and in the Spring and Summer Sessions.

EGR 415 Environmental Engineering (4 credits)

A course in design directed at the inclusion of environmental factors. Consideration is given to resources and recycling in terms of available energy requirements. Economic-thermodynamic combined factors are introduced

and related to environmental decisions. The course uses field trips and guest speakers to illustrate problems and solutions in environmental situations. A group or individual project is required by participating students. This project usually involves the design or modeling of a system with consideration of energy, environment and economics, other projects include experimental work related to environmental concerns and the development of new techniques for waste treatment. Offered in the Winter Semester.
Prerequisites: CHM 114 or equivalent and EGR 241.

EGR 425 Signal and System Analysis (4 credits)

The analysis and synthesis of complex signals and the response of linear systems to complex signals. Singularity functions, orthogonal bases, Fourier synthesis of periodic signals. Exponential synthesis of aperiodic signals, double-sided Laplace transforms, Fourier transforms. Frequency response, time-bandwidth reciprocity, generalized modulation and sampling. A wide range of applications to engineering systems. Offered in the Winter Semester.
Prerequisites: EGR 326 and MTH 254.

EGR 426 Advanced Electronics (4 credits)

A continued study of concepts and techniques of electronics selected as examples of advanced thinking. Recent areas of concentration have been: Communication Electronics: high-frequency transistor behavior, design of multi-stage transistor amplifiers, modulation and demodulation, computer simulation of modulated waveforms, oscillators, resonant load amplifiers; and pulse techniques: linear wave shaping, pulse transformers and transmission lines, switching characteristics of devices, clipping and clamping circuits, multi-vibrators, negative-resistance devices, and switching circuits. Offered in the Winter Semester.
Prerequisite: EGR 326.

EGR 427 Communication Systems (4 credits)

An introduction to the problem of communication in the presence of noise. Introductory probability, random process, with application to the characterization and analysis of noise and random signals. Amplitude and frequency modulation systems, pulse modulation techniques, and the elements of detection theory. Offered in the Fall Semester.
Prerequisites: EGR 344 or EGR 425.

EGR 431 Automatic Control Systems (4 credits)

Review of basic methods for determining the equations of motion of various types of linear components and systems. Transient response to deterministic inputs and the definition of Lagrangian stability. The root locus method. Open and closed-loop frequency response. Bode and Nyquist diagrams. Compensating networks. Use of analog computers in control system design. Offered in the Winter Semester.
Prerequisites: MTH 255 and EGR 326.

EGR 432 Analysis of Nonlinear Systems (4 credits)

Analysis of first- and second-order nonlinear physical systems with many engineering applications. Piecewise-linear models for zero-memory systems. Phase-plane analysis for autonomous systems; singular points, equilibrium, limit cycles. Stability analysis via theorems of Poincaré, Liénard, and Bendixson. Perturbation theory with applications to both forced and autonomous systems, averaging methods. Subharmonics, jump phenomena, and frequency entrainment in forced systems. Offered in the Fall Semester.
Prerequisites: MTH 255 and EGR 326.

**EGR 462 Mechanical Properties
of Materials (4 credits)**

Mechanical behaviour of materials with an emphasis on defect structures in metals. True stress-strain properties of real materials. Plastic deformation and fracture of metals and non-metals — dislocations, mechanical twinning and slip phenomena. Theories of yield strength and fracture and phenomenological fatigue behaviour. Work hardening theories for metals and strengthening mechanisms in solids. Offered in the Winter Semester.

Prerequisite: EGR 361.

**EGR 472 Electronic Properties
of Materials (4 credits)**

Crystal structure of important electronic materials, band theory of solids, transport phenomena, particle statistics, equilibrium distribution of carriers in semiconductors, electrical conductivity; optical and thermal effects in semiconductors, and introduction to the dielectric and magnetic properties of materials. Experimental work may include Hall effect, Haynes-Shockley experiment, optical determination of energy band gap, thermal effects, growth and x-ray characterization of single crystals. Offered in the Winter Semester.

Prerequisites: EGR 172 and consent of the instructor.

**EGR 473 Solid-State Electronic
Devices (4 credits)**

Non-equilibrium carrier densities, transport of excess carrier densities, p-n junctions and junction devices, interface studies, MOS structures, contemporary device theory, fundamentals of micro-electronics and integrated circuits. Experimental work may include fabrication of alloy junction diodes, growth and characterization of silicon dioxide layers, solid-state diffusion and diffused junction diodes, measurement of surface-state density, thin semiconducting films. Offered in the Fall Semester.

**EGR 481 Hybrid Computation
and Simulation (4 credits)**

An introduction to the application of hybrid and iterative analog computing techniques to large scale engineering problems. Sampling, split simulation, nonlinear function generation, parameter optimization, partial differential equations, and error analysis of hybrid computing systems. Offered in the Fall Semester.

Prerequisites: EGR 326 or consent of the instructor.

EGR 485 Switching Theory (4 credits)

Boolean algebraic symbolization for nets of binary switched circuits such as counters, timers, and coders for typical computer subsystems. Constructive computation of nonredundant expansions by formal matrix methods are considered and translated into laboratory devices with building block computer elements for computation and on-line data reduction. Introduction to sequential switching decomposition for control and programming of systems. Offered in the Winter Semester.

Prerequisites: EGR 326 or consent of the instructor.

EGR 486 Computer Architecture (4 credits)

The course develops an integration in hardware facilities requisite for modern software operating systems, interactive time sharing, simulation and processing for regular formal language, such as required for information retrieval, process-control and computer aided instruction. For implementing these needs, near-term projections of switching, memory and communication technology are applied. Performance criteria which are independent of technology are analyzed and modern subsystems are studied. Offered in the Fall Semester.

Prerequisites: Two courses in programming; and EGR 326 or a course in switching.

GRADUATE CURRICULUM IN ENGINEERING

For detailed descriptions of graduate courses and admission requirements, see the **Graduate Bulletin**. The School of Engineering presently offers instruction leading to the degrees of Master of Science and Doctor of Philosophy in Engineering, and to the Professional Development degree. Options may be pursued in control and communication systems; energy systems; computer science; and electromagnetic and optical systems.

GRADUATE COURSE OFFERINGS

EGR 500	Graduate Seminar	(1 credit)
EGR 505	Special Topics in Engineering	(4 credits)
EGR 509	Engineering Design Project	(2, 4, 6, 8, 10, or 12 credits)
EGR 510	Introduction to Continuum Mechanics	(4 credits)
EGR 520	Systems Analysis and Models	(4 credits)
EGR 521	Engineering Optimization	(4 credits)
EGR 530	Engineering Probability and Statistics	(4 credits)
EGR 531	Operations Research	(4 credits)
EGR 535	Large Scale Systems	(4 credits)
EGR 540	Electromagnetic Signals and Waves	(4 credits)
EGR 548	Thermal Energy Transport	(4 credits)
EGR 549	Fluid Transport	(4 credits)
EGR 550	Coherent Optics	(4 credits)
EGR 551	Convective Transport Phenomena	(4 credits)
EGR 552	Thermal Transport Phenomena	(4 credits)
EGR 553	Fluid and Thermal Systems	(4 credits)
EGR 555	Energy and Information Systems	(4 credits)
EGR 561	Advanced Mechanics of Materials	(4 credits)
EGR 562	Mechanical Properties of Materials	(4 credits)
EGR 572	Electronic Properties of Materials	(4 credits)
EGR 573	Solid-State Electronic Devices	(4 credits)
EGR 580	Digital Computer Methods in Engineering	(4 credits)
EGR 581	Hybrid Computation and Simulation	(4 credits)
EGR 585	Switching Theory	(4 credits)
EGR 586	Computer Architecture	(4 credits)
Professional Development Program		
EGR 901	Engineering Systems Analysis	(4 credits)
EGR 902	Digital Computer Methods	(4 credits)
EGR 903	Analog and Hybrid Computer Methods	(4 credits)

UNDERGRADUATE CURRICULUM IN COMPUTER AND INFORMATION SCIENCE

The program in Computer and Information Science, which leads to the degree of Bachelor of Science, has as its main thrust the provision of a thorough, in depth, background in computer and information science while allowing individual students maximum opportunity to shape their program to meet individual needs and interests.

The digital computer has come to assume a central role in our society and nearly all phases of business, commerce, industry, education and research employ the computer as an important tool. Persons interacting with computers have diversified complementary interests and thus a viable computer and information science program is one which encourages a broad outlook and multi-disciplinary viewpoint. The Oakland program has been designed to provide both the requisite technological training for persons working with computers and a solid, well-rounded education. The multi-disciplinary viewpoint is encouraged by having faculty from various departments of the university participate in the planning of the CIS program and in teaching CIS courses.

In the academic year 1973-1974, the first two years of the program will be offered. The third year of the program will first be offered in 1974-1975 and the complete program will be available in 1975-1976.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN COMPUTER AND INFORMATION SCIENCE

A student with a major in Computer and Information Science must meet the following requirements in order to graduate:

1. Have completed at least 124 credits.
2. Have completed 32 credits at Oakland University.
3. Have taken the last 8 credits to complete baccalaureate requirements in residence at Oakland University.

4. Have a cumulative grade point average in courses taken at Oakland University of at least 2.0.
5. Have demonstrated writing proficiency by meeting the University standard in English Composition.
6. Have completed 24 credits to satisfy the General Education requirement as follows:
 - a) at least 3 credits in 3 of the 4 groups designated below, and at least 8 credits in one of the groups.
 - b) up to 8 credits in English composition (if required to meet the University standard in English composition).
7. Have completed at least 36 credits in Computer Information Science courses, including at least 28 credits in courses numbered 200 and above.
8. Have completed one of the two mathematics sequences permitted in the program
 - a) MTH 154, MTH 155, MTH 254, MTH 263, or
 - b) MTH 121, MTH 122, MTH 263.
9. Have completed MTH 226 or MTH 325 or an approved course in the student's cognate concentration.
10. Have completed 8 credits in biology, physics or chemistry such as:

CHM 104 and 105 or 114 and 115 or 124 and 125 or
PHY 101 and 102 or 151 and 152 or BIO 104 and 105 or
111 and 113.
11. Have completed 20 credits beyond requirements 8), 9), and 10) in approved course work in a cognate area such as linguistics, engineering, mathematics, economics, management, operations research, public and societal systems, and science.
12. Have a cumulative grade point average of 2.0 in courses taken in satisfaction of requirement 7) above.
13. Have completed an application for degree card at the Office of the Registrar.
14. Be in substantial compliance with all legal curricular requirements.

**A Typical Program In
Computer and Information Science**

Semester 1

CIS 180
MTH 154 or MTH 121
Science
English Composition or
Distribution Requirement

Semester 2

CIS 181
MTH 155 or 122
Science
English Composition or
Distribution Requirement

INTERDEPARTMENTAL PROGRAMS

Students who wish to add an established concentration or otherwise participate in an interdepartmental program must apply to the chairman of the appropriate concentration committee or of the department involved.

Concentration In Computer and Information Science

CONCENTRATION COMMITTEE: DAVID E. BODDY (ENGINEERING) CHAIRMAN; Benjamin F. Cheydleur (Engineering); J. Curtis Chipman (Mathematics); Glenn A. Jackson (Engineering); Robert E. Simmons (German); Michael J. Wozny (Engineering).

The Concentration in Computer and Information Science is offered by the School of Engineering and is available on a joint basis to students within a department of the College of Arts and Sciences or the School of Economics and Management as well as to students in the School of Engineering. Many such combinations are feasible. With a major in mathematics, physics, chemistry, biology, economics, a student may wish to emphasize numerical and scientific computing aspects of computer science. With a major in English, modern languages, history, philosophy, psychology, sociology, or anthropology, a student may wish to take courses in the computer science concentration that emphasize non-numerical and symbolic data processing, language translation, and list processing. With a major in economics and management, a student may wish to take courses oriented toward application of computers in management data processing.

To participate in the Concentration in Computer and Information Science the student must have completed 32 credit hours, including at least one CIS course, and must have obtained the approval of an authorized adviser for the Concentration. The student should apply to the Committee for the concentration in Computer and Information Science by completing the application forms available in Room 248 Dodge Hall. The student's program will then be developed by joint action of the student, the departmental adviser and the Committee.

A minimum of 16 credits in approved courses (including at least 8 credits in CIS courses) is required in the concentration, with the possibility of additional work being required in some instances.

The course offerings in Computer and Information Science are listed on p. 244. of this catalog.

Concentration In Premedical Studies

Engineering students planning a career in the medical or dental profession should complete the concentration in premedical studies. This concentration is offered through the College of Arts and Sciences, and its detailed requirements are given on p. 248.

It is intended to satisfy the minimum requirements for admission to the various medical and dental schools in Michigan and elsewhere. By careful selection of elective courses students may complete requirements for the premedical concentration while also satisfying the requirements for the degree in engineering. The premedical concentration may be completed by taking the courses beyond the science and mathematics courses specified for the core program in engineering as follows:

- a) Biology: 2 courses (10 credits), including laboratories.
- b) Chemistry: 3 courses (15 credits), including laboratories. By proper selection of these courses in consultation with his or her adviser the student may fulfill advanced elective requirements in the engineering program while also meeting the requirements of the premedical concentration.

Concentration In Public and Societal Systems

CONCENTRATION COMMITTEE: DONALD R. FALKENBURG (ENGINEERING) CHAIRMAN; Robert H. Edgerton (Engineering); William F. Moorehouse (Education); Lon Polk (Economics).

The Concentration in Public and Societal Systems is offered by the School of Engineering and is available to students throughout the University. The concentration promotes interdisciplinary work among engineers, economists, sociologists, managers and assists in the preparation of students with major career objectives in areas of public concern such as health-care delivery, pollution control, public safety, urban planning, environmental and resource management. Systems analysis and design methods are employed in many of these fields. The characteristic elements and components of each of these fields of specialization differ but there is a unifying basis for understanding and communication particularly in the area of public services and community development.

The concentration includes courses taught in the College of Arts/Sciences, and Schools of Economics/Management, and Engineering, combined to strengthen the students' (multi-disciplinary) background needed for work on societal problems.

The minimum course requirement for the concentration in Public and Societal Systems is 20 hours. The following two courses are required of all participating students:

PSS 100	Introduction to Public and Societal Systems	(4 credits)
PSS 200	Public and Societal Systems Seminar	(4 credits)

In choosing courses for the remaining twelve credits, at least eight credits must be selected from appropriate courses outside the student's major field. Each student must have his program of study approved by his adviser with concurrence of the Public and Societal Systems Concentration Committee. Any academic unit may require more than these minimum requirements and may impose further restrictions on course selection.

SCHOOL OF PERFORMING ARTS

OFFICE OF THE DEAN:

TERENCE E. KILBURN, ASSOCIATE DEAN, THE-
ATRE ARTS

JERRY L. DAHLMANN, ADMINISTRATIVE DIREC-
TOR, ACADEMY OF DRAMATIC ART

THOMAS F. KIRCHNER, ADMINISTRATIVE ASSIS-
TANT, SCHOOL OF PERFORMING ARTS

ALFRED RUSCIO, ARTISTIC DIRECTOR, ACAD-
EMY OF DRAMATIC ART

ASSOCIATE PROFESSORS: W. W. Kent (Performing
Arts); Terence E. Kilburn (Dramatic Art); Alfred
Ruscio (Theatre Arts)

LECTURERS: Alexander N. Gray; Ronald D. Man-
gravite; Charles Nolte; Elizabeth Orion; Fred D.
Thompson; James R. Tompkins; Jessica Woods

Oakland University constitutes a unique cultural and intel-
lectual milieu in which the School of Performing Arts is en-
abled to concentrate upon the exacting realities of require-
ment and opportunity in the contemporary world of the pro-
fessional performing arts. A distinguished faculty consisting
of successful performers with a vocation to teach offers un-
usual advantages to students of exceptional talent and poten-
tial. Because some members of the faculty are artists-in-
residence, permanent senior teacher-performers, or visiting
artists of the Meadow Brook Theatre or the Meadow Brook
Music Festival, the training of students is directly linked with
the current practices and standards of the finest professional
artists. The ambiance of the University's professional per-
forming arts enterprises affords to the corresponding training
courses of the School both models and masters.

All courses of the School embody the highest quality of
training to prepare young artists for careers on the theatrical
or concert stage. The criterion of achievement is excellence;
the criterion of excellence is based on competitive profes-
sional performance. Every effort is made to encourage in
students a sense of the artist's responsibilities in society and

to develop a concept of the performing arts as vital to the sound cultural health of society. Graduates who demonstrate exceptional abilities and who reach requisite standards of performance may be invited to join the professional performing arts enterprises of Oakland University.

The faculty of the School of Performing Arts is authorized to develop its own standards for performance, curriculum, admission, and graduation. These standards reflect the realities of competitive professional performance. No formal stipulation is made concerning the qualifications of candidates, but these programs best suit emergent actors and concert artists wishing to concentrate on the development of skills. Moreover, experience shows that the more mature students derive most benefit from intensive training. Provided students have a natural talent, the better their general education before entering professional training, the better are their chances of success. Candidates for admission must distinguish themselves in competitive performance and auditions. It is not expected that students will undertake other academic work while training in the programs of the School of Performing Arts.

The School of Performing Arts, through its relationship with resident performing artists in the Theatre and Festival, has launched two highly successful professional training courses. The Academy of Dramatic Art offers an intensive two-year acting course. It selects many of its faculty from professionals associated with the resident company of the Meadow Brook Theatre. A high standard of performance is expected in all aspects of the training, and those who demonstrate the required excellence are eligible for the Academy's Diploma in Dramatic Art.

Summer institutes in the School of Performing Arts offer short-term workshops and master classes in music and the dance. The unique concepts pioneered and developed by these summer programs exemplify Oakland's meritorious contributions to performing arts education.

The scope of the School of Performing Arts continues to broaden. The Academy's distinctive instructional capabilities have been augmented by University Courses expressly designed to introduce the theatre to students in the University's general education program. These courses provide a vital link between Oakland's undergraduate curricula and the endeavors of the Academy and of the Theatre. Plans are under way for professional training in music and in the dance, as well as for master classes in the other performing arts. As essential elements of a comprehensive enterprise in the performing arts, television and film are cited for later inclusion. Both present and future programs of professional

training will extend and deepen the significant contribution Oakland University seeks to make to the larger community through its dynamic and diversifying center for the performing arts.

The School of Performing Arts endeavors, then, to concentrate on the diversification and refinement of professional skills; it also assumes a major responsibility for the development of knowledgeable, alert audiences of tomorrow. The confluence of these concerns, to elevate performance capability and to foster artistic sensitivity and awareness, marks the larger purpose of the University in entering this area.

ACADEMY OF DRAMATIC ART

ADMINISTRATIVE DIRECTOR: JERRY L. DAHLMANN; **ALFRED RUSCIO, ARTISTIC DIRECTOR**

FACULTY: Alexander N. Gray; Terence E. Kilburn; Ronald D. Mangravite; Charles Nolte; Elisabeth Orion; Alfred Ruscio; Fred D. Thompson; James R. Tompkins; Jessica A. Woods

The Academy of Dramatic Art provides practical training in acting for students who intend to make their career in the professional theatre. Intensive training in voice and speech, movement, and acting technique are coordinated to assure that the various elements of acting unite in an overall design for developing the actor's craft. The disciplines and experience of the resident professional actors and the diversified professional experience of other members of faculty help to shape and sharpen the emergent talents of Academy students. The culmination of the training is the opportunity for senior students to refine professional acting techniques through public performances of classic and contemporary plays produced by the Academy's Studio Company.

A distinguished faculty, many of whom have taught at the Royal Academy of Dramatic Art in London and at leading acting schools in North America, is chosen from among professional actors and directors with a vocation to teach. Specialized classes in style and technique complement the normal curriculum and have been given by distinguished artists from leading theatres — such as the Tyrone Guthrie Theater and Stratford Festival Theatre — and acting schools in North America. Many actors and directors of the Meadow Brook Theatre also give specialized classes in style and technique to complement the basic Academy training program.

Carefully controlled class size permits the close individual attention that students need to cultivate the discipline necessary in the professional theatre. Full professional training requires a minimum period of two years, and candidates must be prepared to remain as full-time students for that period of time. Those who complete 66 credits and who satisfactorily pass each semester's examinations are eligible for the Academy's Diploma of Dramatic Art. Provided the candidate has a natural talent for acting, the minimum educational requirement for entry is a high school diploma or its equivalent. Those who successfully pass competitive entrance auditions are admitted to the Academy. The caliber of training, together with the stimulus of the close link with the resident professional company of the Meadow Brook Theatre, places graduates at an advantage in seeking professional employment. Some graduates have been invited to join the resident company of the Meadow Brook Theatre. Others are now members of leading professional repertory companies across the nation.

All communications concerning the professional training course in acting, requests for information on applications for audition should be directed to the Administrative Director of the Academy of Dramatic Art, 130 Varner Hall, Oakland University, Rochester, Michigan 48063.

OFFICE OF THE PROVOST

PROVOST: FREDERICK W. OBEAR

VICE PROVOST: GEORGE T. MATHEWS

The following academic units report directly to the Vice Provost:

Allport College

Evening Program

Department of Learning Skills

New-Charter College

University Center for Community and Human
Development

University Courses

ALLPORT COLLEGE

CHAIRMAN: CARL R. VANN

FACULTY: Philip Singer; Elizabeth Titus; Carl R. Vann

ADJUNCT FACULTY: Enrique Araneta, Jr.; Elliot Beitner; Ralph Cash; Daniel E. DeSole; George R. Gerber; Michael Glanz; Donald W. Loria; Melvyn Rubenfire; John S. Scotti

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

Behavioral Sciences and their interrelationships with the health sciences and humanities are central to the program of Allport College. The Allport curriculum will focus on the study of two major aspects of the Behavioral Sciences: analysis of the basic facts of human behavior, individual and

cultural and the application of these facts in areas such as education, health care and administration, communications and the problems of emerging countries.

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

Allport College does sponsor a concentration in Health-Medical Behavioral Sciences which may be pursued in combination with **any** major or independent concentration. It is described below.

These options should be of particular appeal to pre-professional students in medicine, law and the health-related professions. For further information concerning independent concentrations see pp. 246, 350 and consult Prof. Singer.

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

Concentration in Health Medical Behavioral Sciences

A unique opportunity provided by Allport College is a concentration in Health-Medical Behavioral Sciences. This program is planned to be taken **in conjunction with a regular** departmental major or independent concentration. Its purpose is to offer the multi-disciplinary perspective of the behavioral sciences on the many and varied aspects of the health-medical disciplines, problems and concerns. It provides a cross-cultural as well as an American perspective. It is especially relevant to students seeking careers in health related fields and also offers significant insights and opportunities for study to students pursuing programs of general education, administration and law.

Requirements for the concentration in the Health-Medical Behavioral Sciences are twenty (20) credits to be chosen from:

AC-250-251	Health-Medical Behavioral Sciences
AC-400	Field Practicum in Health-Medical Behavioral Sciences
AN-420	Ethnopsychiatry
SOC-368	Sociology of Medical Practice

Students in the pre-medical program and majors in any of the natural sciences, with advisors' approval, may count four credits of their major course work toward this Concentration.

With advisors' approval, other introductory courses in the social sciences may be substituted for AC-101-102 in this Concentration. Additionally, it is also possible to substitute eight credits of AC-400 for AC-101-102 or four credits of AC-400 for AC-250-251.

Individual programs and advising are available through Allport College faculty. Allport faculty are also available for advice and assistance in placement for a variety of off-campus field study opportunities.

Students enrolled in the Allport College program will be expected to meet all the regular academic requirements of the College of Arts and Sciences (see pp. 53-60) but they will be able to fulfill many of these requirements by taking courses especially planned and taught by the Allport College faculty. In the freshman year each student will be required to enroll in a two-semester Introduction to Behavioral Sciences course (AC 101-102). This sequence satisfies the university distribution requirement in the social sciences. It also meets introductory course requirements in some social science departments.

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

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

Distinctive Features of the Allport College Program

- This academic program is especially designed to provide the students with an experience relevant to the contemporary world.

AC 205 Evaluation of Music (4 credits)

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

Prerequisite: MUS 100.

AC 250-251 Health-Medical Behavioral Sciences (4 credits)

The study of human behavior, institutions, professions and professionalism in the health-medical fields. Emphasis is placed on issues such as: concepts of health and illness, death and dying, the sick role, doctor-patient relationships, organization and delivery of health care, legal and ethical problems and culture and the politics of health and health care and many related concerns.

AC 300 Applied Research (4, 8, 12 or 16 credits) in the Behavioral Sciences

A semester of independent study and applied research undertaken away from the University. Projects will be developed in cooperation with and supervised by Allport faculty within the framework of methodology and explanation in the behavioral sciences.

Prerequisites: AC 101-102, or permission of instructor.

AC 400 Field Practicum in (4, 8, 12 or 16 credits) Health-Medical Behavioral Sciences

Intended primarily for students seeking careers in health related fields, this course offers the opportunity for a supervised field placement experience combined with an academic content and individually guided research. Placements are made through special arrangements with various hospitals, government and voluntary health agencies, comprehensive medical service organizations, pharmaceutical companies and other community agencies.

AC 499 Senior Seminar in (4 credits) Behavioral Sciences



EVENING PROGRAM

DEAN: BILLIE C. DEMONT

The Evening Credit Program is designed to serve new student clienteles by extending and reshaping University services which were formerly geared to undergraduates attending classes during the day. Since the fall of 1972, the Evening Program has grown from a modest offering of 15 courses to a unit granting degrees in eight undergraduate majors. Beginning in the fall of 1973, students may shape their programs of study with majors in economics-management, engineering, English, history, human resource development, political science, psychology, sociology, and speech communication. In addition to these fields, general education courses will be available in 14 program areas. These offerings allow students to earn the baccalaureate entirely through evening study. The program arrays are especially appealing to transfer students, students who work full or part-time, adults, and workers desiring to upgrade their job skills or professional knowledge. Courses are conveniently scheduled for the full-time worker. Most courses meet one evening per week beginning at 7 p.m. Such scheduling allows the evening student to carry 8 credits by committing only two evenings per week to class meetings. Evening offerings also permit day students to schedule classes around full-time or part-time employment.

Many adults and working persons prefer to attend college classes in familiar, community surroundings. Within a general purpose of extending University services to these clientele, the Evening Program has established extension sites in Royal Oak, Michigan, and Pontiac, Michigan. In Royal Oak, an extension site has been established at the Royal Oak Shrine High School, which also houses extension classes for Oakland Community College. This facility was established in the winter of 1973. The Pontiac site at the Whitmer Human Resource Center, was initiated in the spring semester of 1973.

These extension sites provide a natural transition for adults or community college students who wish to experiment with four-year programs before making the full-scale commitment to full or part-time campus study. Many of these students are employed full time and can take advantage of tuition refund plans of their companies. A unique feature of the extension program is that courses are taught almost exclusively by regular University faculty. Although still in their infancy, the extension sites have been established as a base for curricular innovation.



DEPARTMENT OF LEARNING SKILLS

CHAIRMAN: PETER G. EVARTS

PROFESSORS: Peter G. Evarts

ASSISTANT PROFESSORS: James H. Bullock; Barbara Ann Gallow

INSTRUCTORS: N. Z. Bryant, Jr.; Bernadette Dickerson; Barbara B. Hamilton; Margaret L. Kurzman; Mary Ann Vosgerchain; David R. Weinberg

STAFF OF THE READING-WRITING CENTER:
Ethel M. McCullough

The Department of Learning Skills helps freshmen in the University acquire basic learning skills necessary for the performance of college level academic work. While the emphasis in departmental courses is on coherent and generally effective writing, all modes of communication, including speech and reading, as well as other study-related activities such as library search skills and research and annotation are included within the curricula of Learning Skills courses.

Students are placed in Learning Skills courses according to the results of pre-registration diagnostic testing and, unless exempted, are encouraged to enroll in a two-course sequence in the form and content of composition. The courses are so designed that a student who completes the sequence should also be able to meet the University's certification of proficiency in writing for graduation.

The Department of Learning Skills also staffs and maintains a Reading and Writing Center for students who need extra help in these specific skills. Students may use the Center on a voluntary basis or upon referral by their instructors for short, non-credit courses, or they may be assigned to the Center for regular credit tutorial courses.

Although courses in Learning Skills do not fulfill specific distribution requirements, they do count toward graduation. Students who are enrolled in courses below the 100-level should be in close contact with their advisors, however, to insure that they do not exceed the specific limitation of four such courses counting toward the completion of the baccalaureate.

COURSE OFFERINGS

The following courses, with the exception of LS 200, represent the core writing courses for freshman students. Students are assigned to the courses on the basis of diagnostic tests, and they should enroll in the course designed at orientation or registration.

LS 050 Basic Writing Skills I (4 credits)

A course, limited in enrollment to twelve students per section, in writing and related study skills (reading; note-taking; library; discussion) intended to prepare students to enter the regular LS writing program. Graded S/N. Enrollment by assignment. No prerequisite.

LS 075 Tutorial in Writing Skills (4 credits)

A one-to-one course in reading, writing, and study skills. Instruction by the faculty of Learning Skills or the Reading-Writing Center. At least six hours per week involvement (2 hours conference, 4 hours preparation). May be taken separately or in conjunction with LS 050, LS 100, or LS 101. Graded S/N. Open to all students by referral and permission of staff. Hours arranged. No prerequisite.

LS 100 Basic Writing Skills II (4 credits)

A course emphasizing the formal and functional elements in expository writing. Students are introduced to syntactic and rhetorical patterns of the English sentence and related patterns of paragraph development. Graded S/N. Enrollment by assignment. No prerequisite.

LS 101 Basic Writing Skills III (4 credits)

A course emphasizing the development of extended rhetorical structures, with focus on organizational patterns and the principles of logic, coherence, and unity. The course introduces student to techniques of persuasive argument and to fundamental methods of research and annotation. Graded S/N. Enrollment by assignment.

Prerequisite: LS 100 or permission of staff.

LS 105 Efficient Reading (1 credit)

This six-week course is designed for the able reader. Any student who enrolls should: comprehend basic material, have established a working vocabulary for the course, and have a primary need for more efficient study habits. Topics included in the course are: skimming/scanning techniques, adjustment of rate, spotting authors' patterns of organization, drawing inferences and conclusions before and during reading, proper use of textbooks.

LS 200-210 Writing in Special Fields (8 credits)

Courses designed to explore the formal, stylistic, and annotative methods related to specific fields and disciplines, e.g., writing and research in education; technical writing. Open to all students. No prerequisite.

NEW-CHARTER COLLEGE

CO-CHAIRMEN: F. JAMES CLATWORTHY; ROBERT L. STERN

PROFESSORS: Edward A. Bantel; Alfred Lessing

ASSOCIATE PROFESSORS: Marc E. Briod; F. James Clatworthy; Robert L. Stern

ASSISTANT PROFESSORS: Peter J. Bertocci; William C. Fish; James D. Graham; Edward M. Liddle; Clifford I. Pfeil; Ronald M. Swartz

INSTRUCTORS: Carol Halsted; Peg Kurzman; Mary Ann Vosgerchain

New-Charter College is a unique program that will satisfy ALL the General Education requirements, and/or provide for a flexible Independent Concentration that can be tailored to the student's needs or vocational aspirations.

New-Charter College provides an outstanding faculty representative of the Social Sciences, Sciences and Humanities. In addition, we provide an environment and atmosphere that is responsive to people and dedicated to helping you discover the excitement of learning.

New-Charter is geared to fulfilling the Chinese proverb:

I hear and I forget;
I see and I remember;
I do and I understand.

We are do'ers, and if you want more out of your education — consider New-Charter.

Anyone may take New-Charter courses, but only students officially designated in the program may use NCC courses to satisfy the General Education requirements.

SPECIAL FEATURES

Freshman year:

Students define themselves as New-Charter College students by taking eight credits in the program their first semester. This may be done in **three** different ways:

- (1) By taking an eight credit core course (see description below)

- (2) By taking an eight credit core program (two four credit courses listed below)
- (3) By taking any eight credits offered by New-Charter College with permission of the Chairman.

CORE COURSE (Fall Semester)

NCC 100

(8 credits)

This course is an interdisciplinary look at some problem areas of inherent interest to students and faculty. In keeping with the interest of holistic studies (cross disciplinary explorations of important subject matter) the College offers an eight credit course each Fall which is team taught by two or three faculty who come from different disciplines. A student learns from this experience how to look at a problem from different points of view and how the subject matter in a course is really part of many different disciplines.

Some possible topics for the Core Course include human sexuality, environment, global futures, therapeutic methods, radical politics, women's liberation and racism.

CORE PROGRAM (Fall Semester)

NCC 120

Creative Expression Workshop

(4 credits)

Using yourself as the artistic medium of expression you will be exploring communication with yourself and others within the structured form of dance and drama. Music and visual elements will be used to implement the expression.

NCC 121

Images of Man

(4 credits)

This course is unique at Oakland University in combining the study of both Eastern and Western cultures. The course tries to expand your mind by immersing you in a series of cultures other than your own. The instructor for this course has interest in a variety of disciplines — philosophy, literature, history— which can shed light on human nature and culture. His role will not be that of authority on the cultures studied, but rather a guide and model in the exercise of intelligence and imagination. He may know only a little more than you about African culture, for example, but he knows **how to find out** about it. What you can learn from him is not facts (books are better for that), but skills and attitudes that have many uses, and a sense of the joy of learning. Above all, however, this course is designed to help students **learn from each other** through pooling information and comparing attitudes in class, reading and reacting to each other's ideas, and participation in group activities. For when the subject is man, we are all students, and we all have something to teach.

Further Courses:

For incoming freshmen who wish to opt out of either the Core Course or the Core Program, or continuing or transfer students who need to complete their General Education Requirements, or who want to begin putting together an Independent Concentration, New-Charter College offers the following:

NCC 2XX

Seminars (Fall and Winter)

(4 credits)

Each semester the College offers a number (three to eight) of small, intimate seminars centered around topics of interest to students and faculty. These classes involve extensive student participation and are geared to helping

students become more self-actualized by giving them opportunities to manage their own learning environment. Some recent titles of Seminars include: "The World Game", "Ways of Knowing", "Alienation and Pacification", "Advanced Chess", "Better Things for Better Living", and "Creativity".

**NCC 211 Group Experimental (4 credits)
Theatre (Winter)**

A survey of major experiments in 20th century theatre will lay the theoretical ground work for the class's experiences. Theatre pieces will be developed mainly through improvisation with inspiration coming from: 1) social, political, or aesthetic problems, 2) texts, paintings, or scores, 3) scripts from within the group.

NCC 212 Mime (2, 4 credits)

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

NCC 213 Contemporary Dance (2, 4 credits)

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

NCC 240 Dance Appreciation (Winter) (4 credits)

Investigation of dance through history with emphasis on contemporary trends in this art. Course will include study of function of dance in a culture (dance ethnology), evolution and development of theatrical dance and the relationship of dance to other art forms. Also included will be discussion of dance artists, criticism, literature, aesthetics and notation. Use of films and attendance of dance concerts would be vital to the total experience.

**NCC 300 Science Workshop/
Contract (Fall, Winter) (4 credits)**

This workshop will present two possible approaches for satisfying the basic requirements. One involves a scheduled series of seminars and laboratory sessions; the other features the writing of an individual contract fitting the student's own interests and perceived needs. The workshop will be of practical value for the non-science major and will offer the science major an opportunity to pursue his own research interests.

**NCC 302 Field Term (Fall,
Winter, Spring-Summer) (12 credits)**

New-Charter College Field Term pioneered off-campus study at Oakland University and offers a student an opportunity to gain valuable academic and experiential knowledge in a learning environment chosen by and beneficial to the student. Field Terms have been done with well known free schools such as Pinehinge (Maine), Schole (California), Green Valley (Florida); an alternative newspaper in Atlanta, Georgia (*The Great Speckled Bird*) or the New York Times; a civil rights and community support group for blacks in Kenbridge, Virginia; residential treatment centers for emotionally disturbed children (Brownedale); a prison support group in Chicago; the Center for Responsive Law (Nader's group); Aslo Theatre in Florida and Santa Fe Opera Company in New Mexico; working for Senators and Congressmen; and overseas Field Terms in Israel, Belize (British Honduras), Jamaica, Italy, and Great Britain. The possibilities are only limited by your imagination, energy, and enthusiasm.

NCC 403 Apprenticeship (4, 8, 12 credits)
(Fall Winter)

An opportunity to work with someone skilled in their field. The student assumes the initiative in arranging for the placement and must file a Learning Contract approved by the Director of Field Term or the Chairman prior to enrollment.

New-Charter College provides students with maximum flexibility and academic excellence and an opportunity to become whole men and women who are free of fear.

“The purpose of education is not to produce mere scholars, technicians, and job hunters, but integrated men and women who are free of fear; for only between such human beings can there be enduring peace.”

J. Krishnamurti
from **Education and the
Significance of Life**

UNIVERSITY CENTER FOR COMMUNITY AND HUMAN DEVELOPMENT

DIRECTOR: WILMA BLEDSOE

The University Center for Community and Human Development is an academic agency that seeks to coordinate relations among various on-campus academic programs and off-campus community interests. The Center offers the University's Community Service Course Sequence:

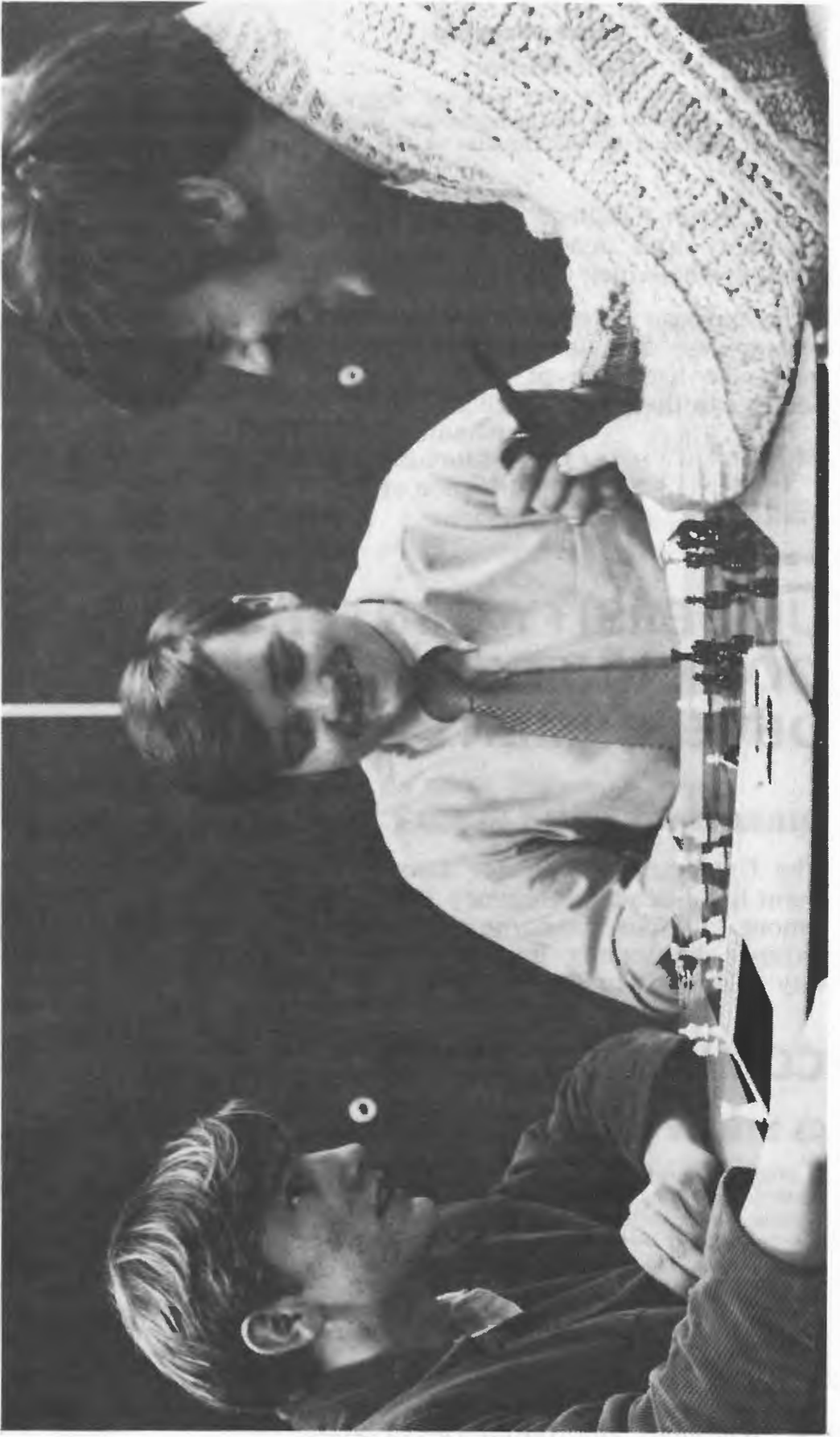
COMMUNITY SERVICE

CS 201-202 Community Service (8 credits each)

A program devoted primarily to volunteer service activity in the local community. A regular but modified schedule of class meetings and a series of academic assignments will also be required. Students will be placed in a service activity of their own interest, as approved by the instructor and the placement coordinator of the program. Admission is by application only, as submitted during the semester preceding enrollment in the course.

Prerequisites: A minimal grade point average of 2.0 and the completion of at least 28 credits prior to enrollment, or the permission of the instructor and the placement coordinator.

For further information consult the Director of the Center for Community and Human Development.



UNIVERSITY COURSES

The University courses are designed to provide an extensive experience of the principal intellectual elements of a liberal and unspecialized education in arts, in letters, in the social sciences, and in the natural sciences, and mathematics. The courses, all of which carry four credits, fall into three divisions: (1) courses which fulfill distribution requirements, (2) exploratories, (3) colloquia. Brief explanations of these divisions follow:

University Courses are non-departmental, general education courses occasionally offered. They may be presented to fulfill distribution requirements for specific field groups in the general degree requirements for baccalaureates in Arts and Sciences, Economics-Management, Education, and Engineering unless specified to the contrary by those faculties.

Symbolic Systems

UC 085 Mathematics

A course for non science 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 previous credit in mathematics except with permission of the Department of Mathematics.

Letters

UC 018 Western Literature

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

UC 036 Western Institutions

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

UC 037 Western Philosophy

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

Fine Arts

UC 045 Introduction to Theatre

An introduction to all aspects of the theatre, including: the place and func-

tion of the theatre in both society and world art, history of the theatre, production, dramatic literature and criticism.

Natural Science

UC 086, UC 087, UC 088, UC 089 Science

Courses for non-science majors which provide knowledge and appreciation of science through readings, discussions, demonstrations, and laboratory work.

UC 086

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

UC 087 and UC 088

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

UC 089

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

Exploratories

Exploratories may be taught by faculty representing all academic units in the University. Classes are designed to permit an orderly but autonomous examination of a subject, a topic, or an area of intellectual concern chosen by the instructor. Further, exploratories are limited in size to enable meaningful discussion of ideas and to encourage a close relationship between students and instructors. These classes may be elected by freshmen and sophomores and may be used to meet the general education distribution requirement if the course number carries the specific field group letter designation (e.g., an exploratory designated UC 01E would be counted toward fulfilling the distribution requirement in Area Studies).

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

UC 01A Symbolic Systems

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

UC 01B Letters

Studies from a variety of viewpoints of the unique interpretation of human

experience which literature represents; of the nature and development of significant social institutions and ideas of the ancient and modern world; and of attempts to organize knowledge and explain phenomena according to diverse philosophic or religious convictions.

UC 01C Fine Arts

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

UC 01D Social Science

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

UC 01E Area Studies

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

UC 01F Natural Science

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

Colloquia

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

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

UC 09A Symbolic Systems

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

UC 09B Letters

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

UC 09C Fine Arts

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

UC 09D Social Science

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

UC 09E Area Studies

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

UC 09F Natural Science

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

University Forum

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

UC 04 University Forum

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

DIVISION OF CONTINUING EDUCATION

OFFICE OF THE DEAN: LOWELL R. EKLUND, DEAN
HARRY B. VAN HOOK, JR.; ASSISTANT DEAN FOR
COURSES: AUDREY I. MARRINER, DIRECTOR OF
MARKETING & PUBLIC RELATIONS; VIRGINIA
MENZIES, REGISTRAR; MARGARET TWYMAN,
MANAGER, MEADOW BROOK HALL

ADMINISTRATORS: Eleanor Driver, Director, Con-
tinuum Center; Janice Guerriero, Director, Business
Education; Dorothy C. Owen, Director, Conference
Services; G. Don Stevens, Director, Labor Education
Service; Harry B. Van Hook, Jr., Director, Manage-
ment Education Programs; G. Gordon Walker, Direc-
tor, Real Estate Programs.

It is generally recognized that education is a never-ending process and extending service to adults in the community has been an integral part of Oakland University's program and philosophy since its founding. The Division of Continuing Education was the first of the University's academic divisions to initiate its programs in September 1958. The many programs of the Division, which include courses, conferences, review and licensing classes, and special events help people to perform effectively in their mature roles as workers, parents and citizens.

Because adults are self-directed and bring their life experiences to the classroom, they enter into learning with mature intentions to apply this learning to life situations. Course interests of adults tend to be more immediate and relevant to everyday life situations.

The Division continuously revises its course offerings to meet the stated needs of adults of all ages in the community whether they be personal or job related. Recent high school graduates, also find that the Division offers them relevant and practical courses and diploma programs. The Division

responds to the idea that education is truly a lifelong process. Adults of all ages have the desire to continue to learn, and they learn best in a setting that allows them to contribute to the learning activity.

PREREQUISITES

The Division offers courses, diploma programs, independent study, and conferences in professional and cultural subjects at university content level. However, the Division differs from other academic units of the University in that its only prerequisite for taking courses is the desire to learn.

Course and informational brochures on diploma programs are available upon request. Call 377-3120, or write the Division of Continuing Education, Oakland University, Rochester, Michigan 48063.

EVENING CREDIT-FREE COURSES

A program of credit-free evening classes, which includes old and new courses, is offered each fall, winter and spring. Independent study courses in management and real estate are available at any time. Currently, over 100 courses are offered in business and investment, communications, computing science, liberal arts, management, medical office, plastics, psychology and real estate areas.

DIPLOMA PROGRAMS

The Division offers diploma programs for adults who wish to undertake a sustained program of studies in computing sciences, management, plastics, real estate, and for medical office, ophthalmic/optometric and administrative assistants. The division also offers the Graduate Realtors Institute and Certified Public Accountant Review Programs.

CONFERENCES

Conferences on various subjects are held throughout the year. Conference subjects range from the problems of widows and divorcees to real estate appraisal. Local issues such as air pollution control and problems of senior citizens are studied by officials and leaders of the community with the objective of mounting action programs leading to solutions or improvement.

CLOSED PROGRAMS

In addition, the Division conducts numerous closed programs designed specifically to meet the needs of business, labor, government and social agencies.

ADULT COUNSELING AND LEADERSHIP TRAINING

The Division directs the Continuum Center for Adult Counseling and Leadership Training which offers a unique and meaningful psychological testing program and specialized counseling service.

CULTURAL AND CONFERENCE CENTER

Meadow Brook Hall, the University's cultural and conference center, is administered by the Division of Continuing Education. (The mansion, a remarkable revival of Tudor architecture, is open for public viewing every Sunday). For information on group tours and daytime or residential conferences, write the Division or call 377-3140.





UNIVERSITY LIBRARIES

OFFICE OF THE DEAN: GEORGE L. GARDINER, DEAN; ROBERT L. GAYLOR, ASSOCIATE DEAN; PHILIP Y. HOWARD, ASSISTANT DEAN FOR TECHNICAL SERVICES; NANCY S. COVERT, ASSISTANT TO THE DEAN.

PROFESSORS: George L. Gardiner

ASSOCIATE PROFESSORS: Robert G. Gaylor; Philip Y. Howard; Lois L. Reilly

ASSISTANT PROFESSORS: Louise M. Bugg; Nancy S. Covert; Jennie B. Cross; Eileen Hitchingham; Melbourne Jordan; Janet A. Krompart; Richard L. Perrengill; Ann M. Pogany; Rita M. Runchock; Suzanne M. Tipler

INSTRUCTORS: Rita Sparks; Elizabeth A. Titus

LECTURER: Margaret S. McDonald

The faculty direct, staff and maintain the University Libraries and their collections of books and related materials. With the advice of members of the other organized faculties, the library faculty select materials to be added to the library's collections and are responsible for the acquisition, preparation, and organization of these materials.

Faculty of the libraries hold appointments as public services or technical services librarians. The Division of Technical Services is a centralized unit, responsible for acquiring, cataloging, and preparing books, periodicals, microforms, documents, and other kinds of library material. The Division of Public Services, on the other hand, functions in terms of controlled decentralization, offering a variety of direct services to the Library's users.

The faculty in both library divisions are responsive to the educational thrusts of the University and active participants in the academic enterprise. They provide one-to-one instruction for students in the use of the Library and assist them in

mastering techniques for the retrieval of information from a variety of bibliographic sources, thus participating with the students in their attempts to search out the many routes to knowledge.

Similarly, the library faculty provide assistance to teachers and scholars in a variety of ways, making every effort to secure for them the library materials needed to support academic programs and faculty research. For example, library faculty prepare subject bibliographies and periodical listings for individual scholars and academic departments.

Since the faculty of the Library are also responsible for research outside of the immediate specificities of bibliographic support of current curricula and faculty research, they are concerned to develop holdings, for example, in interdisciplinary and generalized works of reference and in other bibliographic source materials. Moreover, as a library constitutes a trust for the future, the librarians of Kresge Library search out, evaluate, and sometimes acquire collections of rare or out-of-print books, periodicals, and documents in order to round out the informational resources of the University both in and beyond areas of immediate curricular concern.

Library faculty are involved in continuing research in various areas of academic librarianship. Specialists in the performing arts, in the sciences, in government documents, in general reference, in cataloging and classification, and in the development of library collections are represented on the faculty. The application of computer techniques to the operations of Kresge Library has advanced rapidly over the past few years, and further applications are in progress. As active members of state, regional, and national professional associations, Oakland University's Libraries faculty are aware of recent developments in academic libraries: they make persistent efforts to provide better services, to develop collections of high quality, and in short, to increase the excellence and usefulness of the University.

The Libraries

Oakland University's library collections are housed in Kresge Library and in a small Performing Arts Library (in Varner Hall) which contains a specialized collection of materials on the performance of music, theatre, and the dance. The Kresge Library, completed in 1961, resulted from the generous \$1.5 million gift from The Kresge Foundation. The collections of the University Libraries now contain approximately 240,000 volumes, 170,000 units of microfilm, and 6,000 record-

ings on disc or tape — all in open stacks. The Matilda R. Wilson Memorial Collection of works of reference, amassed through gifts of money from the University's students, constitutes a large part of the collections and provides a substantial research facility. Other remarkable special collections include one of the largest collections in the Midwest of underground newspapers, and the Hicks Collection of books by and about women.

The Library offers many services to its users: audio centers in both Kresge and the Performing Arts Library; a microfilm reading room; a Documents Department, which houses U.S. and U.N. publications and is a partial depository for the official documents of the United States and of the State of Michigan; a science area in which are concentrated the monographs, indexes, periodicals, and abstracts that pertain to this broad subject field; a General Reference Department; a Circulation Department with a computerized check-out system; and a Serials Department in charge of about 25,000 periodical volumes as well as other serials.

RESEARCH FACILITIES

THE OFFICE OF COMPUTER SERVICES

The Office of Computer Services (OCS) provides centralized computing resources to support the instructional, research and administrative activities at Oakland University. Two general-purpose computer systems, an IBM 360/40 and a Burroughs B5500, are housed within specially designed quarters at the central facility (in Dodge Hall). The IBM 360/40 batch processing computer is primarily engaged with management information systems (financial records, student records, etc.) which support the planning, control and operational functions of the University. The large scale Burroughs B-5500 timesharing computer offers powerful on-line and batch processing services, oriented to academic applications. Users may interact with this system either directly at the computing center, or from a number of timesharing terminals located across campus. A broad range of problem solving software is available, including the programming languages COBOL, FORTRAN IV, ALGOL and BASIC. An Academic Services staff develops and maintains a comprehensive scientific and technical program library and offers consulting services to faculty and students.

OCS also maintains a Student Services Room at the central facility which contains keypunch machines, user work space, reference material and an information desk. Faculty and students are encouraged to avail themselves of these services throughout the development and implementation of their computing assignments.



UNIVERSITY FACULTY

OFFICERS OF INSTRUCTION

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Ph.D., University of New Hampshire Associate Professor of Chemistry

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Ph.D., Boston University

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Acting Chairman, Department of Music
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Acting Chairman, Department of Philosophy, Fall Semester, 1973
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License es Lettres, University of Paris;
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Ph.D., *University of Michigan*
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M.S., *Illinois State University*; Ph.D., *Northwestern University*
Associate Professor of Psychology
- MADISON B. COLE, JR. *Assistant Professor of Biological Sciences*
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A.M., *Indiana University*; M.A., *Middlebury College*
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Academy of Dramatic Art
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University Library
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M.A., University of Detroit; Ph.D., Michigan State University
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B.A., Cambridge University; Ph.D., University of Birmingham
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The degree programs of Oakland University participated from its founding in the full accreditation status of the programs of Michigan State University. All baccalaureate programs of Oakland University were separately accredited by the North Central Association of Colleges and Secondary Schools in August, 1966. Final accreditation was granted by the Association in 1971 for master's level programs leading to the degrees of Master of Arts, Master of Arts in Teaching, and Master of Science and preliminary accreditation was granted for the doctorate in engineering. Accreditation has been given to the program of the Department of Chemistry by the American Chemical Society. The undergraduate program of the School of Engineering has been accredited by the Engineers' Council for Professional Development.

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

Mrs. Ruth H. Adams

Ken Morris

Leland W. Carr, Jr.

Arthur W. Saltzman, *Vice Chairman*

Marvin L. Katke

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*Vice President,
Business Affairs
& Treasurer to the
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*President,
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& Ex Officio Member,
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*Vice President,
Public Affairs
& Secretary to the
Board of Trustees*

Assurance of Compliance with Title VI. Civil Rights Act of 1964

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

All announcements in this catalog are subject to revision at the discretion of the University.

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OFFICIAL PUBLICATIONS

OAKLAND UNIVERSITY UNDERGRADUATE PROGRAMS
General Catalog published annually in September.

OAKLAND UNIVERSITY GRADUATE PROGRAMS
Graduate Bulletin published annually in November.

OAKLAND UNIVERSITY SUMMER SCHOOL
Bulletin published annually in February.

ACADEMY OF DRAMATIC ART
Prospectus published annually in March.

DIVISION OF CONTINUING EDUCATION
Catalog published twice yearly in September and January.

CORRESPONDENCE DIRECTORY

Mailing address: Oakland University, Rochester, Michigan 48063. Officers of the University will be pleased to answer questions. For prompt attention address specific inquiries to the officers listed below. Telephone numbers are also included. Area Code 313.

ADMISSIONS INFORMATION AND BULLETINS
Undergraduate Students - Director of Admissions 377-3250
Graduate Students - Dean of Graduate Study 377-3168
Academy of Dramatic Art - Administrative Director 377-3010

BUSINESS MATTERS
Vice President for Business Affairs 377-2240

CAREER ADVISING AND PLACEMENT
Director, Placement Office 377-3250

CONTINUING EDUCATION
Dean of Continuing Education 377-3120

EDUCATIONAL PROGRAM, TRANSCRIPTS, ACADEMIC REPORTS
The Registrar 377-3450

LOANS AND ON-CAMPUS EMPLOYMENT
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Graduate Students - Financial Aid Officer 377-3370

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Upperclassmen - Director of Financial Aid 377-3370
Graduate Students - Dean of Graduate Study 377-3168

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