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1974-75

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More information inside back cover

...to the many kinds of learning people who come to us

Certain advantages exist for you at Oakland because we are still small enough to have preserved the personal touch yet large enough to have developed a full line of academic choices--including graduate school. For example, our growing Evening Program duplicates much of our daytime offerings in order to fit your plans, for you could be a high school graduate, a transfer or a part-time student or older adult. We realize you could even be a parent and be holding down a full-time job. Perhaps you are a returning veteran.

We are also receptive to those of you who are having your first chance to reach for higher education opportunities and may have need of financial, tutorial or personal help. And our personal touch even includes commuter and ride-pool services--which often are the only means by which some of you can stretch your money and time sufficiently to make an education possible.

The new programs and expanded hours reflect what's happening in higher education and in the career and job market. There is an adaptation here as never before to the many kinds of learning people who come to us.

Thus career planning is quite a special thing for each of us. You could be a high school senior who is working out career and education ideas with family or school counselors and teachers. Or you could be married and working but realizing new educational needs. But whatever your status, it should bring you into contact with our admission's staff, faculty, career advising and placement people. And part of our services involves helping you locate career-related summer jobs, placement after graduation and even help later on.

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

Discuss your career with the people at Oakland

CAREER HIGHLIGHTS

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. Health-medical behavioral sciences are important related career areas.

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 opportunities to live in foreign lands and speak those languages.

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 THEOLOGY AND MINISTRY

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

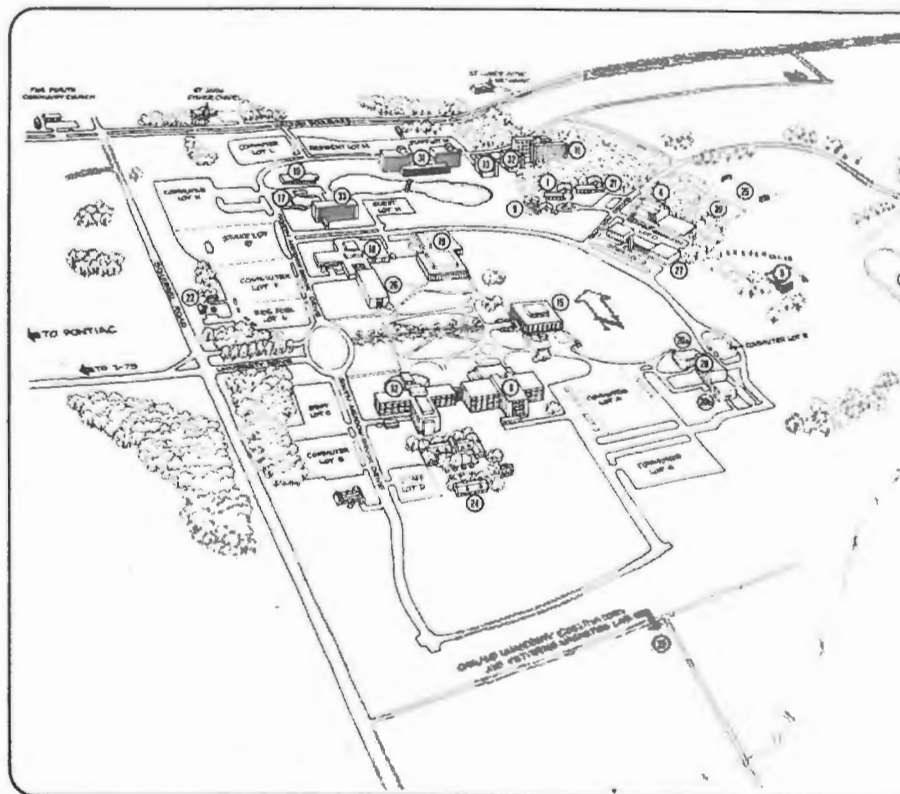
The public-service minded student can consider the newest proposals such as metropolitan and regional communications, public administration, and studies in human resources development for an understanding of complex social problems. Community service, foreign language, guidance and counseling, are needed talents especially for case and group work.

Ultimately, however, a background in social planning and organization is essential for careers in major social programs.

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.

Of course, we've only scratched the surface. Many others including 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.



OAKLAND UNIVERSITY

Ideally situated in fast-growing Oakland County, this young suburban university, now with approximately 400 faculty, has opened its Fall 1974 doors to over 10,000 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, 47-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 eighteen fields. Last year, master's programs in Management, Guidance and Counseling and History were introduced. For Fall 1974, an M.A. in Area Studies and an M.S. in Biology are new.

In the Fall of 1973, the School of Education offered its latest master's program in Early Childhood Education as well as a minor in Physical Education and a degree program in Human Resources Development. For Fall 1974, an undergraduate program in Language Arts has been added.

The College of Arts and Sciences has many new programs including Theatre Arts, Judaic Studies, Journalism, and the Health Sciences. A pre-nursing program anticipates a soon-to-be approved B.S.N. in Nursing. For Fall 1974, Classical Civilization is new along with African Studies and Afro-American Studies.

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 fast-growing Evening Program provides credit and degree offerings in most fields both on and off campus. The Continuing Education Division offers a hundred noncredit diploma programs. The Division's Adult Counseling and Leadership Training is recognized nationally.

Over 1300 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. A sufficient number of students from Africa, the Middle East, Taiwan, Israel, Iraq, etc. has created an international floor for the first time.

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



CALENDAR

1974 FALL SEMESTER

August 26, 27, 28, 29, 30	Monday - Friday	Registration
September 3	Tuesday	Classes begin
November 28, 29	Thursday, Friday	Thanksgiving Recess
December 2	Monday	Classes resume
December 11	Wednesday	Classes end
December 12, 13, 16, 17, 18	Thursday, Friday, Monday, Tuesday, Wednesday	Final Examinations
December 18	Wednesday	Close of Fall Semester

1975 WINTER SEMESTER

**		Advance Registration
January 2, 3	Thursday, Friday	Registration
January 6	Monday	Classes begin
March 8-11	Saturday-Tuesday	Winter Recess
March 12	Wednesday	Classes resume
April 15	Tuesday	Classes end
April 16, 17, 18, 21, 22	Wednesday, Thursday, Friday, Monday, Tuesday	Final Examinations
April 22	Tuesday	Close of Winter Semester

1975 SPRING SESSION

**		Advance Registration
April 24, 25	Thursday, Friday	Registration
April 28	Monday	Classes begin
May 26	Monday	Memorial Day (Holiday)
May 31	Saturday	Commencement
June 19	Thursday	Classes end
June 20, 21	Friday, Saturday	Final Examinations

1975 SUMMER SESSION

**		Advance Registration
June 23	Monday	Registration
June 24	Tuesday	Classes begin
July 4	Friday	Independence Day (Holiday)
August 13	Wednesday	Classes end
August 14, 15	Thursday, Friday	Final Examinations

**Dates to be announced

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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 stand-

ing 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 in 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 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 Oakland. All new students, except those from other states and foreign countries, are required 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 containing the action taken by the committee.

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

CHANGE OF COURSES

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

At the end of each semester, students who have achieved a semester grade point average of 3.00 or higher in 12 hours of University credits will be recognized for their high academic achievement if they have received no "N" grades during the semester.

Students with grade point averages of 3.00 to 3.59 will be sent Commendation letters.

Students with grade point averages of 3.60-4.00 will be sent Semester Honors letters.

Both the commendation and semester honors awards will be recorded on the student's transcript.

UNIVERSITY HONORS*

The three levels of University Honors. Cum Laude, Magna Cum Laude, and Summa Cum Laude, may be awarded to students with the following cumulative grade point averages:

3.60-3.74	cum laude
3.75-3.89	magna cum laude
3.90-4.00	summa cum laude

The awarding of the degree with University Honors will be based only on Oakland University credits, and the student must earn a minimum of 62 credit hours at Oakland to become eligible for University Honors.

Only Baccalaureate Degree candidates are eligible for honors.

All degrees and University Honors awards must be approved by the senate.

*Adopted by the Academic Senate on April 17, 1974.

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 "W" 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 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 \$20.50 per credit hour. Those who register as graduate students are assessed \$28 per credit hour.

All students who are not residents of Michigan are assessed \$58 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 \$9.50 (\$5 student center fee, \$3.50 activity 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. 17 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 the 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 1974-75 rate for Room and Board is \$1350 for the academic year. Special options such as: room only (\$850), single rooms (additional \$250), and cooperative housing (\$680) 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 contract is signed during the Winter Semester of 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 1040 with 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
 Sally Borus Piano Award
 General Motors Scholarship
 Lee Grekin Memorial Scholarship
 Don Iodice Grant-in-aid for Foreign Study
 Isaac Jones Memorial Scholarship
 Oakland Alumni Association Upperclass Scholarship
 Gladys B. Rapoport Scholarship
 Friends of Teruko Yamasaki Award

LOANS

The University participates in two government loan programs, the Federally Insured Guaranteed Student 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.



RESIDENCE HALLS: FACILITIES AND COSTS

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

Head Residents and Resident Assistants live in each hall and serve as advisers to individuals and student groups in their adjustment to group living and to the total University environment. Each Head Resident is responsible for the coordination of his hall's program and the work of his Resident Assistants. Head Residents are usually student personnel professionals or graduate students. 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 residency 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 1974-75 rate for room and board is \$1350 for the academic year. Special options such as: room only (\$850), single rooms additional \$250), and cooperative housing (\$680) 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 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 Housing Office, 448 Hamlin 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 clinic is open Monday through Friday from 8:00 a.m. to 5:00 p.m. If medical assistance is needed when clinic is closed, contact the University switchboard or Public Safety.

A minimum fee of \$3.00 is made for regularly enrolled students to see a physician. There is no charge to see a nurse.

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.

It is recommended all students have a physical examination. All students should complete the *Authorization for Medical Treatment* forms. All foreign students and minors *must* fill in these cards. If you should need emergency medical or surgical treatment at local hospitals, it will be impossible for them to treat you without a signed *Authorization for Medical Treatment* form. It is also important to have the name and telephone numbers of your family physician in the event a case history should be required by the personnel giving emergency treatment.



UNIVERSITY-COMMUNITY COUNSELING & PSYCHOLOGICAL CENTER

The Counseling Center is staffed with clinical and counseling psychologists who provide specialized counseling, consultation, and psychotherapy to Oakland students and to members of the general community with personal and interpersonal problems. The Center also provides group therapy, marriage counseling, and child therapy. Use of the Center is voluntary and is available by appointment at a minimal charge. 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 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

The program of extracurricular activities at Oakland University is designed for flexibility. Student interests, varying from year to year, determine the strength and scope of existing campus organizations as well as the initiation of new clubs and organizations. Many opportunities exist for the active expression of diverse interests and talents and for the development of new skills in leadership and committee work.

During the past year, over 100 organizations have been active on Oakland's campus. Besides the various departmental and religious organizations, Oakland fosters a large variety of special interest groups. Some of these are: academic organizations, *FOCUS-Oakland*, PIRGIM, Association of Black Students, Estudiantes de la Raza, Abstention Coffee House, Ski Club, Varsity Sports Club, Chess Club, Dance Workshop, Oakland Film Front, Management and Economic Community, Order of Leibowitz, etc.

Any student who cannot locate a club which serves his/her particular interest is urged to form his/her own club through the Office for Student Organizations. The primary function of the Office for Student Organizations is assisting students and student organizations. Whether it is a problem concerning a program, policy or personal matter, the staff is pleased to offer any assistance possible. The Office for Student Organizations also provides the following services to students: duplicating facilities, Oakland Exchange, office space, ticket office, travel office, poster and banner facilities, and many other services.

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 Office of Commuter Services exists to meet the needs, represent the interests of, and assist commuting students in finding a sense of community while at Oakland. Located in 118 Oakland Center, the staff stands ready to assist students — to cut hassles, to direct people to the person, office, or group that can best be of assistance, and to help students organize to achieve their goals at Oakland. Some of the services and programs are:

- **COMMUNICATIONS** — Lunch sessions with small groups of the commuter population to gather ideas, share experiences, and plan special interest programs.
- **COMMUTER CONTACT** — A monthly newsletter of events and programs. It is available at distribution points on campus.
- **DIALOGS** — Once monthly, hold question and answer sessions with University administrators in a give-and-take format.
- **EMERGENCY ON-CAMPUS HOUSING** — Available in Residence Halls for a one- to two-week period.
- **LEGAL AID** — Provides legal aid information for students.
- **LOCKERS** — Available for rental in classroom buildings.
- **RESEARCH** — Surveying of commuter interests.
- **RIDE POOL** — Students are assisted in matching schedules within geographic areas so they can ride together. Ride pool members have a reserved parking lot, reduced rates, and less hassles in driving each day.



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

The Student Enterprise Lectures (S.E.L.) 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 University students may participate in several different musical groups and ensembles: Collegium Musicum, Oakland Singers, University Chorus, University Concert Band, University Orchestra and the Afram Jazz Ensemble. In addition, the Abstention Coffee House and the Student Concert Lecture Series allow students to become involved in the booking, advertising and arranging of concerts on campus.

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. There are two active student publications: the student newspaper, *FOCUS-Oakland*, which is a vehicle for student opinion and offers experience in journalism, and *Oakland Afflicted*, a student periodical dealing with the arts, literature, and social comment on an off campus. 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

An integral part of the Student Life program at Oakland University is the Oakland Center. Located close to the center of the campus, the Oakland Center is the focal point for social, cultural and recreational activities. Building facilities are available for use by members of the University community—students, faculty, staff, alumni and friends of the University. The Oakland Center can accommodate a wide range of indoor activities from informal discussion groups to medium-size concerts.

Oakland Center facilities include food service areas, open lounges, the Bookcenter, Charlie Brown's newsstand, information and candy counter, Commuter Services center, office space for student publications and student organizations, recreation games area, student advising office, student darkroom, barber-shop and laundry and dry cleaners.

Among the food service areas are two cafeterias (South Cafeteria and the Sunset Room), a dining room (The Oakland Room), a scramble service area (the Grill), a rathskeller, and rooms for snacks and short order food items. The rathskeller, popularly called the Abstention, is frequently used for impromptu gatherings and for coffee house style entertainment.

COMMUNITY HOUSE

It has been said that college students hold at least one factor in common with all their classmates and that is an active search for learning through intense personal experience. For many students this intense personal experience may involve the use of drugs. It is also possible that many things about college life will cause the individual student problems and can lead to a certain amount of anxiety. Because of the growing pressures of college life, the University saw the need for a student/community organization which would listen and help the student on an informal level; hence, the creation of the Office of Drug Education and Abuse.

Community House is the name of the helping agency of the Office of Drug Education and Abuse. Community House is a student staffed program with offices in the Oakland Center. The student staff is trained to deal with student/college related problems in drug use and many other areas. Community House is, in essence, a multipurpose facility to which all people, all problems, and all questions can be initially directed. The staff is alert to the functions of other programs within the University and will make referrals when appropriate.

JUDICIAL SYSTEMS

University conduct expectations are essential to an environment conducive to learning, to the protection of the University's educational purposes, and to the maintenance of a reasonable level of order on campus. The university strives to maintain these standards through educational programs, counseling, and the promulgation of conduct standards. An important objective in the area of student behavior is to create a climate which fosters self control and observance of standards without great external direction. When this process fails or when circumstances in a conduct situation are particularly serious, appropriate action must be taken. In such cases, an attempt is made to reach decisions which are consistent with the educational objectives of the university and the developmental needs of the student. The Office of Judicial Systems is charged with the responsibility of adjudicating through committee hearings certain alleged misconducts involving students at the university. Standards of procedural due process are carefully observed to assure that the fundamentals of fair play are followed in the adjudication of student conduct problems."

MEADOW BROOK MUSIC FESTIVAL

Oakland University has received international recognition for its Meadow Brook Music Festival, a nine-week season of concerts featuring the Detroit Symphony Orchestra and distinguished guest artists. Now in its second decade, the Music Festival was launched in 1964 with an all-classical format; it currently includes a series of Friday night jazz and popular artists, Sunday evening pops concerts by the Detroit Symphony Orchestra, as well as a final week of jazz.

Last season, the Detroit Symphony Orchestra was conducted by a prestigious array of internationally known guest conductors, including Sixten Ehrling, Kazimierz Kord, Stanislaw Skrowaczewski, Yuri Ahronovitch, Andre Kostelanetz, and Antal Dorati, as well as its principal conductor, Aldo Ceccato. Outstanding guest soloists included Gary Graffman, Lorin Hollander, Eugene Istomin, Jerome Lowenthal, Michel Beroff, Ruggero Ricci, Ilse von Alpenheim, and Anna Moffo. The popular Sunday "Pops" series featured Arthur Fiedler, Jack Benny, Richard Hayman, Morton Gould, Michael Dominicco, John Green, Karan Armstrong, Richard Fredericks, Roger Williams, Franz Allers. Louise Russell, Vahan Khanzadian, and David Bar-Illan.

The San Francisco Ballet received accolades for its three performances at Meadow Brook Festival in its first appearances east of the Mississippi in over ten years. Ballets performed included "Harp Concerto," "Eternal Idol," "Schubertiade," plus the Michigan premiere of a new work entitled "Mother Blues".

Last summer's jazz and popular concerts brought enthusiastic crowds to the Howard C. Baldwin Pavilion to hear such exciting artists as Tony Bennett, Woody Herman, George Shearing, Benny Goodman Sextet, Al Hirt, nostalgic Glenn Miller music featuring Ray McKinley, Ray Eberle, and the Modernaires with Paula Kelly, Earl "Fatha" Hines, Dizzy Gillespie, Anne Murray, Count Basie, Barbara McNair, Ramsey Lewis, Buddy Rich, Max Morath, and the Preservation Hall Jazz Band.



MEADOW BROOK THEATRE

One of the nation's leading resident professional theatres, Meadow Brook Theatre is internationally acclaimed as a distinguished addition to the regional repertory movement that is revitalizing American theatre. The Meadow Brook thrust stage and superb acoustics afford an intimate actor-audience relationship, with no seat more than 58 feet from the stage. The theatre occupies the entire north wing of Matilda R. Wilson Hall on the campus of Oakland University.

The 1974-75 season will include eight plays and run from October to May, each play being offered for three-and-a-half weeks at the Wilson Hall Theatre. For detailed schedule of performance times, call the Meadow Brook Theatre Box Office at 377-3300. Plays scheduled for the 1974-75 season in order of performance, are as follows: "Tonight at 8:30" by Noel Coward (Oct. 10-Nov. 3); "Twelfth Night" by William Shakespeare (Nov. 7-Dec. 1); "Harvey" by Mary Chase (Dec. 5-Dec. 29); "A Touch of the Poet" by Eugene O'Neill (Jan. 2-Jan. 26); "The Misanthrope" by Moliere (Jan. 30-Feb. 23); "See How They Run" by Phillip King (Feb. 27-Mar. 23); "Come Back, Little Sheba" by William Inge (Mar. 27-Apr. 20); and "The Drunkard" new version by Bro Herrod and Barry Manilow (Apr. 24-May 18).

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 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 illustrates the distinctive capabilities of the University's programs in cultural affairs.

The Meadow Brook Art Gallery manifests its characteristics through a program reflecting scholarship and imaginative experimental exhibitions. The recent exhibition, "Found Industrial Objects: Unintended Art" was a multi-media presentation of environmental art of materials found in industry, together with music and modern dance, stimulating a vast audience. On the other hand, scholars and students participated in the preparation and studies of "Chinese Fan Painting of Ming and Ching Dynasties", "Japanese Ink Painting of the Edo Period", and the

"Rajasthani Temple Hangings of the Krishna Cult." Gifts presented by the former Governor G. Mennen Williams, Mr. and Mrs. Ernst Anspach of New York, and other individuals totaling nearly 300 pieces of African art, constitute the University's unique permanent collection.

Active community involvement in the program of the art gallery is reflected in the exhibitions "Art of the Decade: 1960-1970" and "Form, Space, Energy" both showing contemporary paintings and sculptures from the collections of greater Detroit. Also, nationally known private collections such as the collection from Richard Brown Baker of New York, Mr. and Mrs. S. Brooks Barron of Detroit are represented in "A Point of View", "Personal Preference" and "American Realism Post-Pop."

In the 1974-75 season, the Meadow Brook Art Gallery will present prints by contemporary artists: selected from the Richard Brown Baker Collection a survey of the last two decades of contemporary graphic art; "Minoru Yamasaki-A Retrospective" exhibition of internationally renowned architect from Detroit; and "Arts of the T'ang Dynasty" — ceramics and metal work from the 7th and 8th centuries of Chinese art; as well as exhibitions of art works by students and faculty members of the Department of Art and Art History.



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 Bookcenter, Oakland Room and Commuter Services Office; 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.

Howard C. Baldwin Memorial Pavilion (1964)

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

Lula C. Wilson Memorial Concert Shell (1964)

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

Trumbull Terrace (1965)

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

Matilda R. Wilson Hall (1966)

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

Dodge Hall of Engineering (1968)

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

Graham Health Center (1968)

Self-liquidating funds. Health services.

Paula and Woody Varner Hall (1970)

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

Oakland University Observatory (1974)

Gift of the Oakland University Foundation. Located near Kettering Magnetics Laboratory.

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

JOHN BARNARD, *Chairman*

LINGUISTICS

WILLIAM SCHWAB, *Chairman*

MATHEMATICS

GEORGE F. FEEMAN, *Chairman*

MODERN LANGUAGES AND LITERATURES

JACK R. MOELLER, *Chairman*

MUSIC

RAYNOLD L. ALLVIN, *Acting Chairman*

PHILOSOPHY

RICHARD J. BURKE, *Chairman*

PHYSICS

ABRAHAM R. LIBOFF, *Chairman*

POLITICAL SCIENCE

EDWARD J. HEUBEL, *Chairman*

ROGER H. MARZ, *Acting Chairman, 1974-75*

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

WILLIAM WHITE, *Chairman*

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, *Chairman*
 Carl Barnes
 Peter Bertocci
 Gottfried Brieger
 Jerry Freeman

Renate Gerulaitis
 Nigel Hampton
 Robert Howes
 Colin Palmer

Committee on Instruction

Robert Donald, *Chairman*
 Manuel Pierson (*ex officio*)
 Lowell Ruggles (*ex officio*)
 Robert Simmons (*ex officio*)
 Judith Brown

John Cowlshaw
 David Daniels
 Kenneth Harmon
 Jack Moeller

STANDING COMMITTEES OF THE FACULTY OF ARTS AND SCIENCES

Committee on Appointments and Promotions

Reuben Torch, *Chairman*
 Melvin Cherno
 Joseph DeMent
 Peter Evarts

Robert Facko
 Richard Tucker
 Robert Williamson



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. 262).

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. Have taken the last 8 credit hours needed to complete baccalaureate requirements in residence at Oakland University.

D. Have a cumulative grade-point-average of at least 2.0.

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. 396).

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 or 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. 66). 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. 68 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. 403).

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 p. 389).

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 sat-

isfy the distribution requirement in Letters. Other language courses count in the Symbolic Systems group.)

SCN 310 Philosophy of Rhetoric (cross-listed with PHL 240)

***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. 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, 273, 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 or JRN 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 student 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 F. James Clatworthy (Education and New-Charter College)

Professor William D. Jaymes (Modern Languages and Literatures)

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 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 | |
| 9. History | |
| 10. Linguistics | |
| 11. Mathematics | |

- | | |
|--|-----------------------------------|
| 12. Chinese Language
and Civilization | 23. Political Science |
| 13. French | 24. Psychology |
| 14. German | 25. Sociology |
| 15. Russian | 26. Anthropology |
| | 27. Sociology and
Anthropology |
| | 28. Speech Communications |

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

Environmental Health
Medical Technology
Medical Physics

For further details on these non-departmental majors, see p. 262.

C. The College offers secondary teaching majors under the auspices of the following departments. (For detailed information see material under each departmental entry and p. 325 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. 325 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 | |
| 6. Mathematics | |

E. The College offers an interdepartmental secondary teaching

major under the auspices of the Committee on the Social Studies Program. This Committee also makes available a secondary teaching minor in social studies. (See pp. 278 and 325.)

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

1. African Studies (see p. 251)
2. Afro-American Studies (see p. 253)
3. Archaeology (see p. 267)
4. Computer and Information Sciences (see p. 268)
5. East Asian Studies (see p. 254)
6. Environmental Studies (see p. 268)
7. Health-Medical Behavioral Sciences (see p. 270)
8. Journalism (see p. 270)
9. Judaic Studies (see p. 270)
10. Latin American Studies (see p. 259)
11. Linguistics (see p. 271)
12. Preprofessional Studies in Medicine and Dentistry (see p. 272)
13. Public Management (see p. 295)
14. Religious Studies (see p. 272)
15. Slavic Studies (see p. 257)
16. Social Justice and Corrections (see p. 275)
18. Speech Communication (see p. 276)
19. Theatre Arts (see p. 276)

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. 281).

H. The College offers work in science for elementary education majors. (See p. 282).

MAJOR STANDING AND GENERAL REQUIREMENTS FOR MAJORS

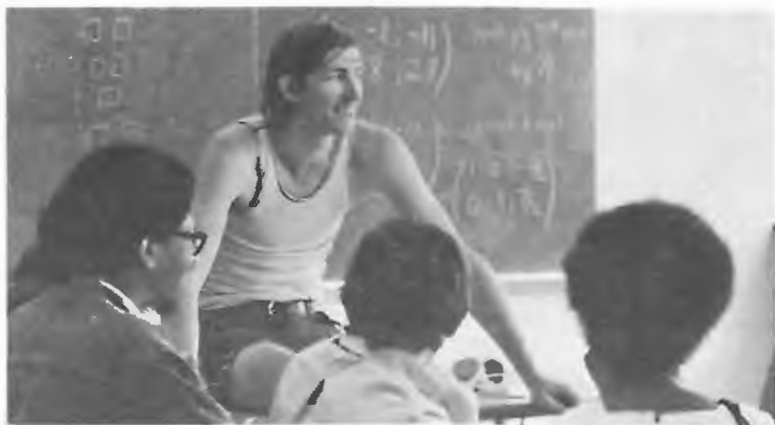
There are no College regulations governing admission to major standing or retention in major standing. Each department establishes its own procedures in these areas. At the earliest possible moment students should consult the chief advisor of the department in which they wish to major to be sure they 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), Ralph F. Glenn (Art History), Donald D. Keyes (Art History), Cecelia 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 providing creative instruction both for majors and for non-majors. While the major in art is not career-oriented as such, the major receives preparation for graduate study in archaeology, art history, or studio art which may lead to a profession in college teaching, museum curatorship, editorial work with art publishing firms, fine arts conservation, or to the independent practice of film-making, multi-media, painting, printmaking, and sculpture.

The departmental program of instruction is strengthened through group visits to The Detroit Institute of Arts and other public and private collections, 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.

The department offers a special program in archaeology and cultural conservation, the Institute in Tuscan Archaeology, each spring and summer session. Classes in the spring are held on the university campus and in the summer at the Castello di Spannocchia, headquarters of The Etruscan Foundation, Inc., near Siena, Italy. University and adjunct specialists in archaeology, art history, conservation, and museology staff this program.

In 1971 The Archives of Michigan Architecture were 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 or SA 100 and SA 130.

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

AH 100 Introduction to European Art (4 credits)

History and analysis of the visual arts of western Europe

AH 101 Great Masters of Painting (4 credits)

The paintings and significance of selected artists in Europe and the United States from Leonardo de Vinci to Andy Warhol. Open to AH majors for elective credit only.

AH 102 Introduction to African, Oceanic and American Indian Art (4 credits)

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

AH 104 Introduction to Asian Art (4 credits)

History and analysis of the visual arts of Asia, especially those of India, China, and Japan.

AH 200 African Art (4 credits)

The arts of the non-technocratic peoples of West, Central, and East Africa.

AH 202 Oceanic Art (4 credits)

The arts of the non-technocratic peoples of the Pacific basin.

AH 204 Pre-Columbian Art (4 credits)

The arts of the Indians of Mexico, Central America, and South America prior to the Spanish Conquest.

AH 206 North American Indian Art (4 credits)

The arts of the Eskimo, the Northwest Coast, and Canadian Indians.

AH 208 Afro-American Art (4 credits)

The arts of black Americans of African descent produced in the United States since ca. A.D. 1700.

AH 262 Modern Art (4 credits)

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.

AH 263 Modern Architecture and Urban Design. (4 credits)

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

AH 290 Readings in Art History (2 credits)

Specific reading projects in art history, art criticism, connoisseurship, and conservation intended for but not limited to the non-major. Prerequisite: Permission of instructor.

AH 300 Chinese Art (4 credits)

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.

Prerequisite: AH 104.

AH 301 Japanese Art (4 credits)

The development of architecture, sculpture, and painting in Japan from the 5th to the 19th century A.D.

Prerequisite: AH 104.

AH 304 Japanese Painting (4 credits)

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.

AH 312 Near-Eastern and Greek Art (4 credits)

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.

Prerequisite: AH 100.

AH 314 Etruscan and Roman Art (4 credits)

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.

Prerequisite: AH 100.

AH 315 Methods of Art Historical Archaeology (4 credits)

The history and methodology of archaeology as a tool of art historical investigation. This course will include classroom lectures and field-work demonstration.

Prerequisite: AH 100, Permission of Instructor.

AH 316 Tuscan Archaeology (4 credits)

Practice in the excavation and conservation of ancient and medieval sites in Tus-

cany. This course is offered in Italy in the summer session. Corequisite: AH 317; Prerequisite: AH 100, AH 314, AH 315, and Permission of Instructor.

AH 317 Museology and Conservation (4 credits)

Practice in the conservation of art objects, the reconstruction of fragmented artifacts, and the cataloging of archaeological finds. This course is offered in Italy in the summer session.

Corequisite: AH 316, Prerequisite: AH 100, AH 314, AH 315, and Permission of Instructor.

AH 320 Byzantine Art (4 credits)

The development of architecture, sculpture, and painting in the Eastern Roman Empire from A.D. 350 until the Turkish conquest of Constantinople in A.D. 1453. Prerequisite: AH 100.

AH 322 Early Medieval and Romanesque Art (4 credits)

The development of architecture, sculpture, and painting in western Europe from A.D. 330 through the apex of Christian monasticism ca. A.D. 1150.

Prerequisite: AH 100.

AH 326 Gothic Art (4 credits)

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.

Prerequisite: AH 100.

AH 330 Renaissance Art (4 credits)

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

Prerequisite: AH 100.

AH 340 Baroque Art (4 credits)

The development of 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.

Prerequisite: AH 100.

AH 350 American Art (4 credits)

The development of 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.

Prerequisite: AH 100.

AH 450 Michigan Architecture (4 credits)

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

Prerequisite: AH 100, AH 350.

AH 490 Problems in Art History (4 or 8 credits)

Directed research in specific subject areas of or approaches to art history. May be taken in different semesters under different instructors for a total of 8 credits or, with permission of instructor and departmental chairman, may be taken in one semester for a total of 8 credits (in which case a "P" grade may be given). Prerequisite: 12 credits of AH and permission of Instructor.

**2. Requirements for the Liberal Arts
Major in Studio Art**

SA 100, SA 101, SA 200, SA 201, SA 300, SA 301, SA 400, SA 401, 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.

Transfer students are accepted as majors in studio art and are assigned an appropriate level on the basis of a portfolio.

STUDIO ART COURSES

- SA 100 Introduction to Studio Art, I (5 credits)**
Introduction to visual concepts and their relationships to various media and expressive considerations.
- SA 101 Introduction to Studio Art, II (5 credits)**
Continuation of SA 100.
Prerequisite: SA 100 or Permission of Instructor.
- SA 130 Art Since 1945 (4 credits)**
Critical analysis of the principal visual and thematic ideas in the visual arts of the United States and Europe since 1945. Lecture course.
- SA 200 General Compositional Elements, I (5 credits)**
Exploration of various elements of composition including color, field, line and scale.
Prerequisite: SA 101 for studio art majors; Permission of Instructor for non-majors.
- SA 201 General Compositional Elements, II (5 credits)**
Continuation of SA 200.
Prerequisite: SA 200 for studio art majors; Permission of Instructor for non-majors.
- SA 205 Printmaking (5 credits)**
Basic approaches to the visual concepts, the various means of self-expression, and the techniques inherent in the medium of printmaking. May be taken in different semesters for a total of 10 credits.
- SA 206 Sculpture (5 credits)**
Basic approaches to the visual concepts, the various means of self-expression, and the techniques inherent in the medium of sculpture. May be taken in different semesters for a total of 10 credits.
- SA 300 Specific Compositional Elements, I (5 credits)**
Detailed exploration of specific elements of composition such as horizontals, modules, and environmentals.
Prerequisite: SA 201 for studio art majors; Permission of Instructor for non-majors.
- SA 301 Specific Compositional Elements, II (5 credits)**
Continuation of SA 300.
Prerequisite: SA 300 for studio art majors; Permission of Instructor for non-majors.
- SA 305 Workshop (5 credits)**
Investigation of the creative use of specific contemporary media such as audio and video tape, computers, and other electronic devices.
Prerequisite: Permission of Instructor.

SA 306 Principles of Figure Drawing (5 credits)

The traditional approaches to figure drawing.

Prerequisite: Permission of instructor.

SA 400 Specific Media, I (5 credits)

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.

SA 401 Specific Media, II (5 credits)

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

CHAIRMAN: Nalin J. Unakar

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; John D. Cowlshaw; Moon J. Pak; John R. Reddan; Michael V. Riley; Nalin J. Unakar

ASSISTANT PROFESSORS: Madison B. Cole; Esther M. Goudsmit; R. Douglas Hunter; Paul A. Ketchum; Arun K. Roy; Barry S. Winkler

LECTURERS: Philip T. Clampitt; James R. Wells

The Department of Biological Sciences offers programs of study leading to the degrees of Bachelor of Arts, Bachelor of Science, and Master of Science. (For a description of the M.S. program see the Graduate Bulletin.) These programs prepare the student for graduate studies in the life sciences, laboratory and research work in industries concerned with biological materials, professional careers in medicine, dentistry, 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 physicochemical insight, co-requisite training in chemistry, physics and mathematics is required.

Requirements for the B.S. Degree in Biology

Forty credits in Biology from BIO 111 and above are required. This total must include at least seven lecture courses, (corre-

sponding lecture and lab courses should normally be taken simultaneously). In addition, two years of chemistry (one year of general chemistry — CHM 114, 115 expected — and one year of organic chemistry, and associated labs), mathematics through integral calculus (MTH 155), and a one-year calculus-requiring general physics course and lab are required. Finally, in addition to the formal course requirements, the student must complete one of the following three alternatives: (a) a senior paper based upon research performed under BIO 490, (b) a senior paper based upon a literature search on a research-oriented topic taken under a BIO 405, or (c) a comprehensive exam, testing breadth of knowledge in biology, and ability to express oneself in clear, scientific prose.

Requirements for the B.A. Degree in Biology

Forty credits in biology (from BIO 111 and above) are required. This total must include at least seven lecture courses (corresponding lecture and lab courses should normally be taken simultaneously). In addition, 14 credits of chemistry (two semesters of general and one semester of organic chemistry, with associated labs), 10 credits in physics (two-semester general course and lab), and mathematics through a standard pre-calculus course (MTH 123 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. One year of general chemistry and associated labs, and mathematics through a standard pre-calculus course (MTH 123 or MTH 134) and the following education courses: ED 244, 245; ED 428, and ED 455, are required. Minors in chemistry or physics, or a group minor in chemistry and physics (as listed under requirements for the teaching minor in science, p. 282) are recommended.

Requirements for the Secondary Teaching Minor in Biology

Twenty credits in biology (from BIO 111 and above) are required.

LIBERAL ARTS MAJOR IN BIOLOGY (BS or BA) (A Typical Program)

Semester 1
BIO 111, 112

Semester 2
BIO 113, 114

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

Semester 7
BIO Lecture and Lab
Distribution Requirement
Elective
Elective

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, 207 or elective

Semester 6
BIO Lecture and Lab
Physics 102 (or 152) and 158
Distribution Requirement
Foreign Language or 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. 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
ED 245
Math or elective

Semester 5

BIO Lecture and Lab

Physics 101 or 151

Distribution Requirement

Foreign Language or elective

Semester 7

BIO Lecture and Lab

Distribution Requirement

Elective

Elective

See paragraph in above section on proper choice of math, physics and chemistry course.

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).

Semester 6

BIO Lecture and Lab

Physics 102 (152) and 158

Distribution Requirement

Foreign Language or elective

Semester 8

ED 428

ED 455

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 and Winter semester.

BIO 105 Biology of the Human (4 credits)

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

Prerequisite: BIO 104 or permission of the Instructor.

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 microbial structure and function; nutrition, growth and genetic systems in microorganisms; host-parasite relationships; basic principles of immunology; antimicrobial agents; microorganisms and the environment. Classification of bacteria, algae, slime molds and protozoa. Offered in the Fall Semester.
No prerequisites.

**BIO 201 Human Anatomy
 and Physiology I (4 credits)**

A detailed study of general physiological principles and mechanisms. Emphasis will be focused on the functional anatomy and normal physiology of the nervous, locomotor and cardiovascular systems.
Prerequisite BIO 111.

**BIO 202 Human Anatomy and
 Physiology Laboratory I (1 credit)**

A detailed study of the structure of the human body as the basis of normal function. Dissections, charts, models, and some demonstrations will be coordinated with lectures presented in BIO 201.
To accompany BIO 201.

**BIO 203 Human Anatomy and
 Physiology II (4 credits)**

A continuation of BIO 201 with emphasis on the respiratory, excretory, gastrointestinal and reproductive systems.
Prerequisite BIO 201.

**BIO 204 Human Anatomy and
 Physiology Laboratory II (1 credit)**

A continuation of BIO 202.
To accompany BIO 203.

BIO 221 Physiology (4 credits)

A detailed study of general physiological principles. Primary emphasis will be focused on the following topics: characterization of the internal environment; bio-energetics; transport of material across the cell membrane; osmoregulation; respiration; conduction; contraction; circulation. Offered in the Fall, Winter and Spring Semester.
Prerequisite: BIO 113.

**BIO 222 Anatomy and
 Physiology Laboratory (1 credit)**

A detailed study of vertebrate anatomy and physiology.
To accompany BIO 221.

BIO 223 Histology (4 credits)

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

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. Offered in the Winter Semester.

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. Offered in the Winter Semester.

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.

Prerequisite: Permission of the Instructor.

BIO 301 Ecology (4 credits)

Basic principles of environmental biology, illustrated through field study with applications to Man. Offered in the Fall Semester.

Prerequisite: BIO 113 or permission of the Instructor.

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. Offered in the Fall and Winter Semesters.

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. Offered in the Winter Semester.

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. Two lab options are available; see BIO 342 and BIO 345. Offered in the Winter Semester.

Prerequisite: BIO 225.

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. Offered in the Fall Semester.

Prerequisites: BIO 111, 112, 113, 114.

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.

BrO 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, subcellular organelles, protein and nucleic acid biosynthesis and cellular control mechanisms. Offered in the Fall Semester.

Prerequisites: BIO 225, CHM 204, PHY 102.

BIO 408 Cellular Biochemistry Laboratory (1 credit)

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

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. Offered in the Winter Semester.

Prerequisites: BIO 323 and permission of the Instructor.

BIO 412 Laboratory in Experimental Embryology (1 or 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.

BIO 415 Differentiation (4 credits)

A consideration of the theories relating to the control of differentiation and development.

Prerequisite: BIO 323.

BIO 425 Biophysics (4 credits)

An examination of the relationship of biology to the other sciences. Quantitative analysis of living systems will be emphasized, particularly at the cellular and sub-cellular levels. Offered in the Winter Semester.

Prerequisites: BIO 225 or equivalent, calculus, organic chemistry, and general physics.

BIO 426 Biophysics Laboratory (1 credit)

To accompany BIO 425.

- BIO 429 Cytochemistry (4 credits)**
A survey of techniques currently used in microscopy to analyze the distribution and quantity of specific chemicals within cells and their organelles. Techniques included are: specific staining reactions, enzyme digestion, metabolic inhibition, and autoradiography.
Prerequisites: BIO 223, 224 and permission of the Instructor.
- BIO 430 Cytochemistry Laboratory (2 credits)**
To accompany BIO 429. Individual research projects employing cytochemical techniques to study and compare the chemical compositions of several types of cells.
- BIO 435 Developmental Genetics (4 credits)**
An integrated discussion of the concepts of modern aspects of genetics derived from molecular and microbial systems, and their application to the problems of development in multicellular organisms. Offered in the Fall Semester.
Prerequisite: BIO 341 and 342, BIO 323, 225 and 226 or permission of the Instructor.
- BIO 436 Developmental Genetics Laboratory (1 credit)**
To accompany BIO 435.
- BIO 437 Virology (4 credits)**
Molecular biology of viruses, predominantly bacterial
Prerequisite: BIO 225, 331 or 341.
- BIO 438 Virology Laboratory (1 credit)**
To accompany BIO 437.
- BIO 441 Microbial Genetics (4 credit)**
A discussion of the genetics of microbial systems, including molds, bacteria, protozoa, and viruses.
Prerequisites: BIO 331 and BIO 341.
- BIO 442 Microbial Genetics Laboratory (1 credit)**
To accompany BIO 441.
- BIO 445 Ultrastructure (4 credits)**
A consideration of the fine structure of cells and cell products as revealed by electron microscopy and other procedures. Offered in the Winter Semester.
Prerequisite: BIO 223 and permission of the Instructor.
- BIO 446 Ultrastructure Laboratory (2 credits)**
To accompany BIO 445.
- BIO 455 Seminar (4 credits)**
Discussion of recent publications in the biological sciences.
- BIO 463 Cell Biology (4 credits)**
Prerequisites: BIO 223 and permission of the Instructor.
- BIO 464 Cell Biology Laboratory (1 credit)**
To accompany BIO 463.
- BIO 471 Advanced Physiology-Nerve (4 credits)**
Review and analysis of the modern concepts of membrane excitation phenomena of nerve and synapse. Electrophysiological phenomena discussed mostly at cellular and molecular levels. Offered in the Fall Semester in alternate years.
Prerequisites: BIO 221 and permission of the Instructor.
- BIO 472 Advanced Physiology Laboratory (1 credit)**
To accompany BIO 471. An introduction to research techniques in electrophysiol-

ogy. Work will include: use of oscilloscope, amplifiers, and stimulator; extracellular potential recording technique; microelectrode technique.

BIO 473 Advanced Physiology-Muscle (4 credits)

Review and analysis of the modern concepts of muscular activity and molecular mechanism of contraction. The discussions will include the ultrastructural correlation of muscle function and mechanics, biochemical approaches to elucidate energetics of muscle contraction, theories of molecular basis of muscular contraction. Offered in the Fall Semester in alternate years.

Prerequisites: BIO 221 and permission of the Instructor.

BIO 474 Advanced Physiology Laboratory (1 credit)

To accompany BIO 473. An introduction to research techniques in muscle physiology. Work will include: neuromuscular transmission study; isometric force measurements; isotonic lever design problems; length-tension, force-velocity relations; stress-strain relations of series elastic component; contractile properties of isolated actomyosin system and glycerinated muscle fiber.

BIO 490 Individual Laboratory Work (2, 3 or 4 credits)

Prerequisite: Permission of the Instructor.

BIO 497 Apprentice College Teaching (2 credits)

Assisting in presenting a course, usually a laboratory course, to underclassmen. Prerequisite: Permission of the Instructor.



DEPARTMENT OF CHEMISTRY

CHAIRMAN: Paul Tombouliau

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

ASSOCIATE PROFESSORS: Julien Genyca; Steven R. Miller; Frederick
W. Obear; Joe 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 (Bachelor of Science)

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. These must include the basic courses: CHM 114, 115, 117, 118, 217, 218, 234, and 235, or their equivalents; the intermediate courses: CHM 312, 317, 344, 345, and 348; and two advanced lecture courses and two advanced laboratory courses in chemistry. Twenty-six credits in mathematics and physics are required. These must include MTH 154, 155, 254, PHY 151, 152, and 158, or their equivalents, and one additional MTH or PHY course at the 200-level or higher. Students completing this program ordinarily are awarded the Bachelor of Science (B.S.) degree. They may, however, petition the Department to receive the Bachelor of Arts (B.A.) degree.

GRM 114-115 or RUS 114-115, introductory courses in German or Russian, are recommended for students planning to go on to graduate study and research in chemistry.

American Chemical Society Certification

The Department of Chemistry faculty, facilities, and curriculum meet the criteria of the American Chemical Society. Thus the Department is empowered to certify chemistry students as eligible for membership in the Society. Certification is granted to students who have successfully completed the requirements for the (B.S.) major in chemistry, including an advanced course in analytical chemistry. Foreign language study is recommended.

Requirements for the Liberal Arts Major in Chemistry (Bachelor of Arts)

This curriculum is a flexible program with a minimum of specific requirements and a maximum of electives. It is designed for those students who prefer to plan much of their own programs. This curriculum should be selected by chemistry students with strong interests in biochemistry, chemical physics, environmental studies, technical-business careers, technical-legal careers, and medicine.

Thirty-four credits in chemistry are required. These must include the basic courses: CHM 104, 105, 107, 203, 204, 206, 207, 217, or their equivalents; intermediate course CHM 305 or 344; and at least one other lecture course and one laboratory course in chemistry at the 300-level or higher. Also MTH 154, 155, PHY 151, 152, 158, or their equivalents, are required.

Admission to Major Standing in the Chemistry Department

In order to be considered for graduation with a Bachelor of Science or Bachelor of Arts degree in chemistry, the student must be admitted to major standing by the Department at least three (3) semesters prior to graduation. This is necessary in order to ensure both student and department that all requirements will be met in time. Students should make application by obtaining and filling out the appropriate form at the Chemistry Department Office, or by a similar communication in written form to any member of the chemistry faculty, during their fifth semester. A student will be admitted to major standing after successful completion of a total of thirty (30) credits in chemistry, physics, and mathematics.

Concentration in Premedical Studies

Students may complete requirements for both a chemistry major and a concentration in premedical studies by simply adding the required 15 credits in biology courses. The concentration in premedical studies is further described on page 272.

Concentration in Environmental Studies

By a suitable choice of courses in the liberal arts (B.A.) chemistry major and a minimum of 20 credits in environmental studies courses, a concentration may be completed. For those desiring more training in environmentally related techniques, the requirements for the chemistry major may be reduced by applying for a modified major (see below) and substituting environmental studies courses for chemistry courses. Consult the program director or departmental advisor for details.

Options in Environmental Health, Biochemistry, Industrial Chemistry, Forensic Chemistry, Chemical Physics

Students may emphasize one or more of the applied fields of chemistry by either 1) electing appropriate courses in addition to the regular major curriculum, or 2) fashioning a more individualized program of study through the modified major procedure (see below). Consult the departmental advisor for details.

Modified Majors in Chemistry

Any student may petition the department for a modification of the requirements for the degree. Modifications may consist of 1) substitutions of courses of other departments for required chemistry courses, or 2) reduction of total credit required in chemistry or related fields. Modified majors are often used in programs where students choose to emphasize areas outside chemistry. Petitions for modification of degree requirements are not automatically approved, so the student is well advised to consult the departmental advisor concerning appropriate modifications.

Requirements for the Secondary Teaching Major in Chemistry

Thirty credits in chemistry are required. These must include CHM 104, 105, 107, 203, 204, 206, 207, 217, and 305, or their equivalents. Also MTH 154 and 155 are required, as are ED 244, 245, 428, and 455. A minor is required; a group Biology-Physics minor, consisting of twelve credits in Physics and twelve credits in Biology is recommended. Admission to major standing must be attained at least one semester prior to registering for ED 455.

Requirements for the Secondary Teaching Minor in Chemistry

Twenty credits in chemistry courses are required.

Departmental Honors may be awarded to graduating seniors in chemistry who have been recommended for honors by their research advisors and have completed all required science courses with consistently high grades.

Placement in Introductory Chemistry Courses

Three first-year courses (CHM 104, 114, 124) are provided for the introduction of chemical principles to students at three levels of mathematical and physical sophistication. In order to assure the best choice of course, each student must take the University Mathematics Proficiency test before registering for any of these courses. Placement is based on the results of this test, and high school science and mathematics experience. Consult the department or class schedule for details.

CHM 104-105 Introductory Chemistry (4 credits each)

Introductory study of the basic concepts of chemical theory and elementary principles of problem solving, as required for further work in organic and biochem-

istry, materials science, physics, and related courses.

Recommended preparation: Two years of high school mathematics and one year of high school science.

Prerequisite: See "Placement in Introductory Chemistry Courses" above.

CHM 107 Introductory Chemistry Laboratory (1 credit)

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

Prerequisite: CHM 104. Accompanies CHM 105.

CHM 114-115 General Chemistry (4 credits each)

A study of the basic concepts of chemical theory, together with the development of problem-solving skills necessary to deal with quantitative aspects of stoichiometry, states of matter, elementary atomic and molecular structure, thermochemistry, equilibrium, and kinetics of reactions.

Recommended preparation: Two years of high school mathematics and one year of high school chemistry.

Prerequisite: See "Placement in Introductory Chemistry Courses" above.

Corequisite: MTH 134-135, or 154-155.

CHM 117-118 Chemistry Laboratory (1 credit each)

Introductory experiments in various areas of chemistry. Basic techniques of separations and qualitative analysis.

Pre- or corequisite: CHM 114-115 or CHM 124-125.

CHM 124-125 General Chemistry (4 credits)

Review of the basic concepts and principles of quantitative problem solving as in CHM 114-115. Because of higher degree of preparation of students in this course, much class time will be devoted to in-depth study of special aspects of chemistry of current interest. Calculus will be used as needed. Recommended preparation: Three years of high school mathematics, one year of high school chemistry, and one year of high school physics.

Prerequisite: See "Placement in Introductory Chemistry Courses" above.

Corequisite: Registration in MTH 154-155.

CHM 191 Computer Techniques for Chemistry (2 credits)

Applications of computer programming to special problems in chemistry. Students will learn sufficient expertise in Fortran programming to permit them to use several numerical methods to solve problems of properties of gases, reaction rates, complex equilibria, spectroscopic analysis, and molecular orbital calculations.

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

CHM 201 Introduction to Organic and Biological Chemistry (4 credits)

A one-semester study of the structure and reactivity of organic molecules. The biochemical functioning of carbohydrates, proteins, lipids, and nucleic acids are emphasized. CHM 104 (or 114) and CHM 201 constitute a complete course program for students who must learn the basics of organic and biochemistry within two semesters. CHM 201 is not applicable as chemistry credit for biology, chemistry, physics majors, pre-medical students, or secondary-education minor in chemistry.

Prerequisite: CHM 104 or 114.

CHM 203-204 Introductory Organic Chemistry (4 credits)

Study of the basics of organic nomenclature, structure, and reactions. Stereochemistry, mechanisms of reactions, synthesis pathways, and biopolymers will be emphasized.

Prerequisite: CHM 105 or 115.

**CHM 206-207 Introductory Organic Chemistry (1 credit each)
Laboratory**

Training in the basic techniques of synthesis, degradation, separation, and identification of organic substances. Some experience with natural products included:

Prerequisite: CHM 107 or 117

Corequisite: CHM 203-204

CHM 209 Chemical Laboratory Techniques (2 credits)

A comprehensive introduction to chemical laboratory practices with emphasis on clinical aspects. Experiments are chosen to illustrate techniques and principles of synthesis, analysis, separation, and measurements of physical properties.

Prerequisite: CHM 201.

**CHM 217 Introductory Analytical Chemistry (1 credit lecture,
2 credits laboratory)**

Classroom and laboratory practice in the fundamentals of gravimetry, titrimetry, polarography, spectrophotometry, and complex equilibrium systems.

Prerequisite: CHM 118 or CHM 207.

CHM 218 Introductory Synthesis Laboratory (2 credits)

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

Prerequisites: CHM 217, CHM 234.

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

Functional groups, reaction mechanisms, stereochemistry, rearrangements, polymers, and natural products.

Prerequisites: CHM 105 or 115.

**CHM 261 Radioisotope Chemistry (1 credit lecture,
2 credits laboratory)**

Classroom study of nuclear structure, reactions, and decay schemes. Laboratory practice in the measurement of radioactivity, safety precautions, radioisotope handling techniques, and tracer applications.

Prerequisite: CHM 217 and MTH 155.

CHM 271 Environmental Chemistry (4 credits)

Application of chemical principles to the study of selected current problems of environmental concern. Will include the basis of eutrophication, combustion chemistry, pesticide activity, and chemical-ecological relationships.

Prerequisites: CHM 203 or 234. Identical with ENV 271.

CHM 290 Introduction to Research (1, 2, or 4 credits)

Introduction to laboratory research for students with no previous experience in research. (May be repeated for credit. Graded S/N)

Prerequisite: Permission of the instructor is required.

CHM 305 Introductory Physical Chemistry (4 credits)

A one-semester study of the thermodynamics and kinetics of chemical reactions, transport properties and irreversible processes. Emphasis is placed on solving physical-chemical problems related to biological systems.

Prerequisites: CHM 105 or 115, PHY 102 or 151, MTH 122 or 154 (MTH course may be taken as corequisite.)

CHM 312 Inorganic Chemistry (4 credits)

A study of the compounds of the representative elements and transition metals,

emphasizing structure, bonding, and reaction mechanisms.

Prerequisite: CHM 305 or 344.

CHM 317 Inorganic Chemistry Laboratory (2 credits)

Advanced preparatory techniques; methods of purification and analysis.

Prerequisite or corequisite: CHM 312 and 218.

CHM 344-345 Physical Chemistry (4 credits each)

Macroscopic systems: thermodynamics, equilibrium properties, transport properties, and kinetics. Microscopic systems: quantum mechanics, bonding, molecular structure, statistical thermodynamics.

Prerequisites: CHM 115, MTH 155, PHY 152. Students may take CHM 345 after passing CHM 305, on condition of instructor's permission.

CHM 348 Physical Chemistry Laboratory (2 credits)

Experimental measurements of thermodynamic, equilibrium, and kinetic properties of selected chemical systems. Emphasis on quality of data, analysis of error, and validity of results.

Prerequisites: CHM 305 or 344 and 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 357-358 Biochemistry Laboratory (2 credits each)

Training in the techniques of extraction, separation, identification, and measurement of activity of substances of biological importance.

Prerequisite (or corequisite): CHM 351.

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 or 234 and 305 or 344.

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 or 234 and 305 or 344.

CHM 400 Seminar (1 credit)

Weekly discussion of all fields of current interest in chemistry. (May be taken two different semesters for credit. Graded S/N)

Prerequisite: Permission of the instructor.

CHM 405 Selected Topics (1,2,4, or 6 credits)

Advanced study in special areas: seminars, laboratory work, and readings. (May be repeated for credit.)

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

CHM 413 Advanced Inorganic Chemistry (4 credits)

Chemical applications of group theory with special emphasis on inorganic and organo-metallic chemistry. MO theory and VB theory, introduction to ligand-field theory, and molecular vibrational and electronic spectroscopy.

Prerequisite: CHM 312 and 345.

CHM 422 Advanced Analytical Chemistry (4 credits)

Detailed treatment of theory and applications of modern analytical methods.

Prerequisite: CHM 344.

**CHM 426 Electroanalytical Chemistry (1 credit lecture,
2 credits laboratory)**

Basic electronics, passive networks, Laplace 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 Chemistry (4 credits)

Detailed discussion of aspects of modern synthetic methods, stereochemistry, and reaction mechanisms.

Prerequisite CHM 204 or 235.

CHM 444 Advanced Physical Chemistry (4 credits)

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 practice in research for undergraduates. (May be repeated for credit. Graded S/N)

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

CHM 497 Apprentice College Teaching (2 or 4 credits)

Directed participation in the teaching of selected undergraduate chemistry courses. (May be repeated for credit, but credit for this course does not apply toward departmental graduation requirements. Graded S/N)

Prerequisite: Permission of instructor.

Chemistry courses on the 500-level are primarily 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. Details may be found in the Graduate Catalog.

DEPARTMENT OF CLASSICAL LANGUAGES AND LITERATURES

CHAIRMAN: Stephen C. Shucard

ASSOCIATE PROFESSORS: Stephen C. Shucard; Cherryl A. Wagner

ASSISTANT PROFESSOR: Peter J. Binkert

LECTURER: David R. Cole

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 anti-

quity 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, a secondary teaching major in Latin, and a new major in Classical Civilization.

PROGRAMS:

1 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).

2 Requirements for the Liberal Arts Major in Latin

The same as the major in classical languages except that the 36 required credits are made up without any courses in Greek.

3 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.

4 Requirements for the Liberal Arts Major in Classical Civilization

Forty-eight credits of required and prescribed electives as follow:

Required:

- (1) CLS 100 Introduction to Classical Civilization (4 credits)
- (2) Three semesters of Classical Greek (i.e., completion of GRK 214) to be taken in:
 - GRK 114 Elementary Greek (4 credits)
 - GRK 115 Elementary Greek (4 credits)
 - GRK 214 Intermediate Greek (4 credits)
 - or
 - Three semesters of Classical Latin (i.e., completion of LTN 214) to be taken in:
 - LTN 114 Elementary Latin (4 credits)
 - LTN 115 Elementary Latin (4 credits)
 - LTN 214 Intermediate Latin (4 credits)
- (3) Two courses from the following (at least one course must be elected from each series):
 - CLS 130 (=HST 230) The Dynamics of Ancient Civilization: Egypt, Mesopotamia, Israel, Greece (4 credits)
 - CLS 131 (=HST 231) The Dynamics of Ancient Civilization: Rome and the Mediterranean (4 credits)
 - CLS 203 Survey of Greek Literature (4 credits)
 - CLS 205 Survey of Roman Literature (4 credits)

Electives:

- (1) Three courses to be chosen, **in consultation with a departmental advisor**, from the following:
 - CLS 150 Introduction to Greek and Roman Archaeology (4 credits)

CLS 204 (=PHL 204) Classical Greek Philosophy (4 credits)

CLS 212 (=AH 312) Near-Eastern and Greek Art (4 credits)

CLS 214(=AH 314) Etruscan and Roman Art (4 credits)

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

CLS 312 (=ENG 312) Classical Mythology (4 credits)

PHL 205 Hellenistic and Medieval Philosophy (4 credits)

PHL 382 Ancient and Medieval Philosophers (4 credits)

(2) Three courses to be chosen, **in consultation with a departmental advisor**, from the following:

CLS 324 The Ancient Historians (4 credits)

CLS 337 (=HST 337) Hellenic Greece (4 credits)

CLS 339 (=HST 339) Republican Rome (4 credits)

CLS 340 (=HST 340) Imperial Rome (4 credits)

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

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

CLS 300 Topics in Classical Literature (4 credits)

CLS 317 The Classical Tradition (4 credits)

CLS 490 Directed Reading in Classical Civilization
(4, 8 or 12 credits)

GRK 215-480 (4 credits per course)

LTN 215-480 (4 credits per course)

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.

CLS 100 Introduction to Classical Civilization (4 credits)

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 102 Studies in Vocabulary and Etymology (4 credits)

A basic course in vocabulary building. Topics include: the origin of scientific and literary terms; foreign phrases in current use; borrowing of words into English from other languages, particularly Latin and Greek; synonyms and antonyms; and the relationship between meaning and culture, and meaning and context.

CLS 130, 131 The Dynamics of Ancient Civilization (4 credits)

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.

CLS 150 Introduction to Greek and Roman Archaeology (4 credits)

A general introduction to the literary, cultural and historical importance of classical Greek and Roman archaeology on our modern understanding of classical antiquity.

CLS 203 Survey of Greek Literature (4 credits)

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

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.

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 and REL 211.

CLS 212 Near-Eastern and Greek Art (4 credits)

Identical with AH 312.

CLS 214 Etruscan and Roman Art (4 credits)

Identical with AH 314.

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 majoring 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.

CLS 337 Hellenic Greece (4 credits)

Greek history from the Bronze Age through the Peloponnesian War. Identical with HST 337.

CLS 339 Republican Rome (4 credits)

Roman history from the regal period to the end of the Republic. Identical with HST 339.

CLS 340 Imperial Rome (4 credits)

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

CLS 382 Ancient and Medieval Philosophers (4 credits)

Identical with PHL 382.

CLS 396 The Ancient Near East (4 credits)

The World of the Bible

Identical with HST 396.

CLS 397 History of the Second Jewish (4 credits)

Commonwealth

Identical with HST 397.

CLS 490 Directed Reading in (4, 8 or 12 credits)
Classical Civilization

Independent study for senior Classical Civilization majors only in areas not covered in regular course offerings.

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. May be taken for one or more semesters.

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 single 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. May be taken for one or more semesters. Offered every semester.

Prerequisite: LTN 320 (3 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: Eleftherios N. Botsas

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

ASSOCIATE PROFESSORS: Eleftherios N. Botsas;
Karl D. Gregory; John E. Tower

ASSISTANT PROFESSORS: David P. Doane; Alice C. Gorlin;
John Hurd II; Kenneth C. Young

INSTRUCTOR: Socrates Tountas

ADJUNCT PROFESSOR: Theodore O. Yntema

The curriculum for the liberal arts major in economics combines an emphasis on the concepts and tools of economics, the hard analytical approach of economics, a broad general education, and the freedom to take several courses in other areas of interest to the student. The student learns to apply economic analysis to major problems that face the nation and the world today: the economic development of our cities; the delivery of health care; the "energy crisis"; environmental degradation; changes in international trade and finance; the role of the multinational corporations; the economic development of less-developed countries; the operation of alternative economic systems; and other areas of concern.

CAREERS

An education in economics is an excellent background for professional education in graduate schools of business administration, public administration, or management, and in law schools. For students who plan to enter the work force directly after graduation, the economics degree will provide entree to management training programs in larger companies and employment in government and other not-for-profit institutions. To be employed as a professional economist or to teach economics, a student normally has to proceed on to graduate school and obtain at least a master's degree in economics — and preferably a doctorate.

PROGRAM IN ECONOMICS

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 economics faculty 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 by either participating in the College of Arts and Sciences' General Education Program (see page 63 of this catalog) or by participating in the program of one of the inner colleges — Allport College or New Charter College (see page 389 of this catalog).

All students majoring in economics should consult periodically with a faculty or student adviser in the School of Economics and Management or with the Chairman of the Department of Economics.

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

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 Sciences' 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 . . . 5
ECN 216	Microeconomic Analysis 4
ECN 217	Macroeconomic Analysis 4
ECN 418	Selected Topics in Economics
or ECN 480	Policy or Seminar in Economics 4
TOTAL IN ECONOMICS CORE PROGRAM	25

ECONOMICS ELECTIVES

The student completes his/her work in economics by electing at least four (4) additional courses (16 credits) in economics electives numbered ECN 300 or higher. **Two of these economics electives must be numbered ECN 400 or higher.** The directed readings, independent study, and tutoring courses (ECN 392, 494, 490 and 497) may not be used as these required economics electives.

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.

CONCENTRATIONS FOR ECONOMICS MAJORS

To guide the student in the selection of economics electives and to allow him/her to develop an interest in a specific area, several concentrations are available to the economics major. These concentrations represent a set of four to seven courses beyond those required for the economics major that will give the student a solid introduction to another academic area.

The following concentrations are available to economics majors. Other concentrations may become available in the future.

1. **Afro-American Studies**—The standard concentration in Afro-American Studies for the economics major is a minimum of 28 credits, specified as follows: AS 064, HST 291, 292, and at least 16 credits from an approved list given on page 251 of this catalog.
2. **Computer and Information Science**—The standard concentration in Computer and Information Science for economics majors is 16 credits, specified as follows: MGT 205 or CIS 180, CIS 181, ECN 300 or ECN 444, and MGT 305. Other combinations of courses may be acceptable. See page 268 of this catalog.
3. **Environmental Studies**—The standard concentration in Environmental Studies for economics majors is 20 credits, specified as follows: ENV 151, 181, 182, 202, and ENV 305 or ECN 208. See page 254 of this catalog.
4. **Health-Medical Behavioral Sciences**—The standard concentration in Health-Medical Behavioral Sciences for the economics major is 20 credits specified as follows: AC 101-102, AC 250-251, and either AC 400, AN 420, or SOC 368. See page 270 of this catalog.

5. **Journalism**—The standard concentration in Journalism for economics majors is the successful completion of 20 credits in journalism courses, including JRN 200 (News Writing). See page 270 of this catalog.
6. **Public and Societal Systems**—The standard program in the School of Engineering's concentration in Public and Societal Systems for the economics major is to complete 20 credits from an approved set of courses. Of the 20 credits, the student must take PSS 100 and PSS 200 (an introductory course and a seminar in Public and Societal Systems), and at least eight (8) credits of the non-economics courses from the list on page 272 of this catalog.
7. **Public Management**—The standard concentration in Public Management for economics majors is at least 29 credits, specified as follows: PS 100, 205, 251, and 351; ECN 336; MGT 200; and MGT 436. See page 295 of this catalog.
8. **Social Justice and Corrections**—The standard concentration in Social Justice and Corrections for the economics major is 20 credits, specified as follows: SOC 430 (Internship for 4 or 8 credits); the rest of the credits to be chosen from SOC 320, 325, 327, or PS 343, and SOC 430. See page 275 of this catalog.

RECOMMENDED COURSES FOR STUDENTS INTERESTED IN GRADUATE STUDY

Students who expect to go on to graduate school in economics or management should obtain as strong a foundation as possible in mathematics, economic theory, and the social sciences. Toward this goal, it is suggested that such students

- a. take the MTH 154-155 (Calculus) sequence and very seriously consider taking advanced courses in mathematics;
- b. take ECN 405 (Econometrics) and ECN 417 (Advanced Economic Theory).

Those seriously interested in going on to graduate work are urged to consult an adviser early concerning their programs.

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 (or MGT 210)
Distribution Requirement
Elective

Semester 2

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

Semester 4

ECN 217
Distribution Requirement
Social Sciences Requirement
Elective

Semester 5

Economics Elective (300 level)

Social Science Requirement

Distribution Requirement

Elective

Semester 7

Economics Elective (400 level)

Economics Elective (400 level)

Elective

Elective

Semester 6

Economics Elective (300 level)

Distribution Requirement

Elective

Elective

Semester 8

ECN 480 or ECN 418

Elective

Elective

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 page 66 of this catalog.)

REQUIREMENTS FOR MAJOR STANDING

Admission to major standing in economics requires: (a) certification of English proficiency; (b) completion of ECN 100-101, ECN 210, ECN 216, ECN 217, MTH 121-122 (or equivalent); (c) completion of 56 credits or more; and (d) at least a 2.00 cumulative grade point average overall and in courses in the major.

**CONCENTRATIONS IN ECONOMICS FOR
FOR NON-ECONOMICS MAJORS*****1. Concentration in Economics**

Students in other majors who wish to combine their major with an introduction to economic theory and its application to the problems of this world may obtain a concentration in economics. The concentration in economics requires that a student take 20-21 credits, including ECN 100-101, two 300-level electives in economics, and a statistics course (either ECN 210, MTH 125, SOC 203, PS 222, or PSY 252). For further information, contact the Concentration coordinator, Mr. John Tower.

2. Concentration in International Economics

Students who wish to combine a knowledge of international economics with their major may take the following concentration in international economics. This concentration is specifically designed for foreign language and Area Studies students. The concentration in international economics requires that a student take 20-21 credits, including ECN 100-101, ECN 323, ECN 423, and a statistics course (either ECN 210, MTH 125, SOC 203, PS 222, or PSY 252). For further information, contact the Concentration coordinator, Mr. E. Botsas.

COURSE OFFERINGS IN ECONOMICS**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 certain course may be waived.

* Approval for these concentrations is now pending in the College. Students may inquire about formal admission to the Concentration in Winter Semester, 1974-75.

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 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 underdevelopment, 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 (5 credits)

Statistical techniques useful in business and economic analysis. Emphasis is on statistical inference, including hypothesis testing, estimation, and regression techniques. Ordinarily offered in the Fall, Winter, and Spring Semesters. Prerequisites: MTH 122.

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.

Prerequisite: ECN 101 or equivalent.

Prerequisite or corequisite: MTH 122.

ECN 217 Macroeconomic Analysis (4 credits)

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

Prerequisite: ECN 101 or equivalent.

Prerequisite or corequisite: MTH 121.

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 of Economics or a faculty member in the Department in an attempt to have the course offered. Any new course offering, any 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.

The following 200-level economics electives are designed for students not majoring in economics or management. They may be taken by economics or management majors, but they may not be used as one of the four (4) required electives in the major.

ECN 208 Economics of the Environment (4 credits)

Application of the tools of economic analysis to the problems of energy, ecology, and the environment. Topics include: measures of the quality of life, the environment as a fixed resource, limits to economic growth, the economics of externalities and public goods, cost-benefit analysis, and the analysis of public policy and the environment.

Prerequisites: ECN 100 or ECN 169.

ECN 220 Minority Economic Development (4 credits)

Analysis of the current economic status of minority groups in America, market consequences of discriminations, evaluation of alternative strategies for economic development, and the critical review of recent public economic policies and their impact on change.

Prerequisites: ECN 100 or ECN 169.

ECN 221 Economics of the Afro-American Experience (4 credits)

Application of the tools of economic analysis to the current economic status of Afro-Americans, the economic history of Afro-Americans, the market consequences of discrimination, the evaluation of alternative strategies for economic development, and the critical review of recent public economic policies and their impact on change.

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 Growth and Development (4 credits)

Study of the people, institutions, events, and overall trends in the American economy since colonial times. Emphasizes qualitative and quantitative patterns of change in resource organization for social and private goals.

Prerequisite: Sophomore standing.

ECN 251 The Soviet Economy (4 credits)

The history of Soviet economic development; analysis of the principles of operation of the Soviet economy, with emphasis on planning techniques; the relationship between administrative structure and decision-making; and problems of resource allocation.

Prerequisite: ECN 100 or ECN 169.

ECN 323 International Economic Relations (4 credits)

An introduction to elementary international trade theory, the international monetary mechanism, exchange-rate regimes, the balance of payments, and economic interdependence.

Prerequisite: ECN 101.

ECN 324 Business in the American Economy (4 credits)

Public attitudes toward and government regulation of business in our free enterprise society. Students are exposed to the legal, social, and moral responsibilities of business to the individual, the community, the society, and the government. The course explores the role of business in the current environment of rapid change, shortages, minority demands, demands for pollution controls, and violence. Identical with MGT 324.

Prerequisites: ECN 216.

ECN 325 Industrial Organization (4 credits)

The structure of American industry and the factors affecting it, with emphasis on economies of scale; barriers to entry; structure-behavior relationships, including pricing, product differentiation, and technical change; evaluation of performance and implications for public policy. Identical with MGT 325.

Prerequisite: ECN 216.

ECN 326 Economic Development (4 credits)

Application of the tools of economic analysis to the problems of economic development and growth.

Prerequisite: ECN 101.

ECN 327 African Economic Development (4 credits)

The application of the tools of economic analysis to the historical development of African economies, current strategies for their economic development, and the role of the developed countries.

Prerequisite: ECN 101.

ECN 328 American Economic History (4 credits)

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

Prerequisites: ECN 101 and ECN 210 or equivalent.

ECN 336 Economics of the Public Sector (4 credits)

A study of the role of the public sector and its impact on a market economy. Includes expenditure determination, revenue source analysis, and discussion of current problems.

Prerequisite: ECN 216.

ECN 350 Economic Structures and Systems (4 credits)

A comparative analysis of alternative forms of social organizations and how each attempts to solve the problems of resource allocation, pricing, income distribution, and growth. Capitalism, market socialism, socialism, and the command economy are emphasized.

Prerequisite: ECN 216.

ECN 368 Economics of Human Resources (4 credits)

Economic analysis of the functioning of labor markets, with emphasis on investment in human capital; the role of education; human capital development, the structure of unemployment; labor market differentiation by race, sex, and age;

the geographic and occupational mobility of labor, and the inflation-unemployment trade-off.

Prerequisite: ECN 216 or permission of the instructor.

ECN 392 Directed Readings in Economics (2 credits)

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

Prerequisite: Permission of the instructor.

The following 400-level economics electives are designed for economics and management students who have achieved major standing. The economics major must elect at least two (2) of these courses (ECN 400 to ECN 467) as part of his/her major program.

ECN 400 Advanced Systems Analysis (4 credits)

The course engages topics in the modelling, instrumentation, and control of complex systems. Particular emphasis is placed on the specification, testing, and implementation of policies in environments in which direct controls must be foregone in favor of educational control policies. Among the specific areas in which applications may be found are marketing, education, weather modification, living resource management, and energy-nutrient use management. Identical with MGT 400.

Prerequisites: Major standing and ECN 300.

ECN 405 Econometrics (4 credits)

An introduction to the testing of economic models, expressed mathematically, by statistical methods.

Prerequisites: Major standing 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.

Prerequisite: Major standing.

ECN 418 Selected Topics in Economic Policy (4 credits)

Prerequisite: Major standing.

ECN 420 International Trade and Finance (4 credits)

The theories of international specialization and exchange, commercial policy, national income and balance of payments, monetary relations, foreign investment, and current issues of international economic policy.

Prerequisite: Major standing.

ECN 423 The Multinational Firm (4 credits)

Analysis of the scope, structure, and environment (legal, social, political, and economic), with emphasis on management strategies of planning, marketing, location, and finance across cultural and national boundaries.

Prerequisites: ECN 323 or major standing.

ECN 433 Labor-Management Relations (4 credits)

Analysis of management-employee relations in modern industry; public policy in labor-management areas. Identical with MGT 333.

Prerequisites: 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.
Prerequisite: Major standing.

ECN 444 Simulation in Economics (4 credits)

An introduction to the use of simulation techniques in economic analysis. Identical with MGT 444.

Prerequisites: Major standing and permission of the instructor.

ECN 467 Economics of Health Care (4 credits)

The application of the tools of economic analysis to the health care industry and government health care policy. The course examines the effects of the special characteristics of health care and the current organization of the medical services industry on the pattern of health care produced, its distribution, and the allocation of resources within the industry. Proposed changes in the current system, such as National Health Insurance, are examined and benefit/cost analysis applied to selected public policy problems, such as the public funding of medical research. Identical with MGT 467.

Prerequisites: Major standing.

ECN 480 Seminar (4 credits)

Theses, individual topics, and readings. Ordinarily offered in the Winter Semester.

Prerequisites: Major standing.

ECN 490 Independent Research (2 or 4 credits)

Independent individual research on a topic chosen by the student and approved by the Committee on Instruction prior to the term in which the student elects this course.

Prerequisites: Major standing and permission of the Committee on Instruction.

ECN 494 Independent Group Study (4 credits)

Students in this course determine which current economic issues are of interest to them and then prepare programs 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.

Prerequisites: Major standing and permission of the Committee on Instruction.

ECN 497 Apprentice College Teaching (2 credits)

An elective course open to any well-qualified upperclassman who obtains the consent of a faculty member to assist that faculty member in presenting a regular college course to undergraduates.

Prerequisites: Major standing and permission of the instructor.



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

LECTURERS: Herbert Appleman

ASSOCIATED FACULTY: Professor William Schwab (Linguistics and
English); Assistant Professor Daniel H. Fullmer (Linguistics and English)

The Department of English is dedicated to excellence of teaching and to that scholarly involvement upon which such teaching is based. The faculty is composed of scholars and teachers in British and American literary history, in the theory and criticism of literature and arts media employing language and para-literary forms, in linguistics, in creative and expository writing, and in the teaching of English. Our courses and programs are designed to introduce students to a number of significant literary works, to encourage mastery of the principal scholarly and critical methods and approaches to the study of language and literature, to foster an informed and fully human response to literature, and to help students develop precision and flexibility in their use of the language. Our end is that which Sir Philip Sidney ascribes to imaginative literature itself—to teach and delight—"delight to move men to take that goodnes in hande, which without delight they would flye as from a stranger; and teach, to make them know that goodnes whereunto they are mooved."

The study of English language and literature is a humanistic enterprise, and the individual student's development of a personal style which balances his interests, strengths, and human

commitments with the knowledge and skills appropriate to the discipline is of prime importance. The paths that lead to knowledge of literature and skillful use of language are several; our faculty and our programs reflect the diversity of approaches appropriate to the area of study. The student in a typical program will move from an introduction to basic critical ideas and methods, toward knowledge of major writers, works, and literary kinds, into an upper-level concentration of courses chosen according to his personal and pre-professional interests and needs. Some students find the liberal arts major or the teaching major most appropriate. Others seek double majors or add-on concentrations; still others elect cooperative concentrations in such areas as English/Linguistics; English/Journalism; and English/Theatre Arts.

Suggestions for a variety of major programs, for inter-departmental concentrations, and for English and Language Arts concentrators and minors are available and fully described in the pamphlet, UNDERGRADUATE PROGRAMS OFFERED BY THE DEPARTMENT OF ENGLISH. All prospective students, majors or not, should pick up a copy in the office of the Department in Wilson Hall. The Department also publishes an ADVISING MEMO, available in pre-registration periods. This document fully describes forthcoming offerings. Frequent consultation with faculty advisors of the Department of English is necessary to the selection of a program, appropriate to the individual student's interests and his post-college aims. Students preparing elsewhere for advanced work in English at Oakland are advised to work on university distribution requirements and to elect sophomore courses in advanced writing or survey courses in British or American literature.

Listed below are undergraduate programs of study leading to the degree of Bachelor of Arts with major in English, major in English for teaching on the secondary level, major with concentrations, and a secondary teaching minor in English. The Department offers programs leading to the degrees of Master of Arts in English and (in cooperation with the School of Education) Master of Arts in the Teaching of English. Programs and course offerings in these programs are fully described in the Graduate Bulletin. The Department grants advanced placement in accordance with university policy (see page 12 of this catalogue).

The Liberal Arts Major In English

English 140 (to be taken in either semester of the first year)

and nine additional courses (40 credits) selected from offerings in English are required. Of these nine, at least three must be 300-level courses, and one must be a 400-level seminar. Individual students must plan their programs in consultation with faculty advisors in English. Many students supplement English majors with selected clusters of cognate courses, outlined in the pamphlet, **UNDERGRADUATE PROGRAMS OFFERED BY THE DEPARTMENT OF ENGLISH**. Suggested cognates strengthen the welcome English majors have traditionally received in post-college careers in occupations oriented to work with human beings or with language, and in graduate programs leading to college teaching of English, editing and publishing, library science, law, divinity, medicine, business and management, government service, personnel work, data processing, journalism, and advertising.

Secondary Teaching Major in English

The teaching major is a program recently re-constructed by an interdisciplinary committee representing faculty, recent Oakland graduates, and professional high school teachers. It is designed to prepare the student for the multiple demands placed on the teacher of English. Classroom experience in English and cognate fields leads to pre-professional work in the theory and methodology of teaching and a final full semester of internship in the public schools. The program requires ten courses (40 credits) in English, including English 140, 210, 241, 242, either 224 or 225, either 376 or 377, and 498. Two of the remaining three courses must be taken at the 300-level or above. Eight additional hours of courses in cognate fields are required, to include one course in the teaching of reading at the secondary level; and one course in speech, oral interpretation, or acting. Highly recommended is an additional four-hour course in speech, reading, linguistics, or English composition.

The English Major with a Special Concentration

Modified majors and English majors with add-on concentrations are being developed and current information is available in **UNDERGRADUATE PROGRAMS OFFERED BY THE DEPARTMENT OF ENGLISH**. Our modified English/Linguistics major, requiring six courses (24 credits) in English and American literature and five courses (20 credits) in linguistics is listed under Linguistics offerings. The Department cooperates to aid students planning to combine an English major with pre-profes-

sional concentrations such as Journalism, Pre-law, Religious Studies and Medicine.

Secondary Teaching Minor in English

English 140 and four other courses (20 credits) drawn from offerings in English. Three of these courses should be selected from the list of courses required in the teaching major, described above.

UNDERGRADUATE COURSE OFFERINGS

Courses numbered in the 100's (with the exception of English 140) are directed to the needs of students seeking non-technical, liberally-oriented courses for fulfillment of the university's distribution requirements or for use in minors and particular concentrations. Courses on the 200-level offer broad introductions to literary materials and approaches basic to the study of English. Reading is often extensive, and they are conducted primarily through lecture. Junior standing or English 140 is prerequisite to 300-level courses, more intensive investigations into particular areas of English studies. These courses, the core of the program for majors, are open to advanced students according to their own special needs and their preparations in related disciplines. Courses in the theory and methods of literary history, criticism, and research, applied to problems presented by a specific topic or writer, are offered at the 400-level. They are designed for upperclass majors. Graduate courses on the 500-level are open to senior majors by permission of the instructor and the Chairman of the Department. Seminars for graduate students only are listed as 600 courses.

NOTE: All prerequisites may be waived by the Department, in accordance with University policy. Students should consult the course instructor.

ENG 100 Masterpieces of World Literature (4 credits)

A survey acquainting the student with some of the great books of the world. Classics in various traditions. Open to all students without prerequisite.

ENG 105 Shakespeare (4 credits)

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

ENG 111 Modern Literature (4 credits)

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

- ENG 120** **Current Topics in Literature** (4 credits)
Literature concerning an issue or an area of contemporary concern to the general reader. The topic, announced at pre-registration, will focus in an area such as science fiction, popular literature, literature and the urban experience, the contemporary artist and society. Open to all students without prerequisite.
- ENG 140** **Introduction to Literary Studies** (4 credits)
Intensive practice in the techniques of reading literature and introduction to important basic concepts of criticism and commentary. Reserved for English majors and minors as their first departmental course.
Prerequisite: Intention to major or minor in English.
- ENG 200** **Topics in Literature and Language** (4 credits)
Topics or problems selected by the instructor.
- ENG 201** **Poetry** (4 credits)
Introduction to the analysis and enjoyment of poetry. Reading, lecture, and discussion, with opportunity for creative work.
- ENG 202** **Epic** (4 credits)
Introduction to the analysis and enjoyment of the epic. Reading, lecture, and discussion, with opportunity for creative work.
- ENG 207** **Drama** (4 credits)
Introduction to the analysis and enjoyment of drama. Reading, lecture, and discussion, with opportunity for creative work.
- ENG 208** **Prose Forms: Non-fiction** (4 credits)
The course focus alternates between biography and autobiography in one semester, and discursive prose forms like the essay in the next. Writing assignments offer opportunity for creative work in the form.
- ENG 209** **Fiction** (4 credits)
Introduction to the informed enjoyment of fiction. Emphasis on only one form—the short story, or the novel, for example—at the discretion of the instructor.
- ENG 210** **Fundamentals of Exposition** (4 credits)
A systematic approach to writing designed to enhance the student's own writing skills and also his ability to teach writing.
- ENG 211** **An introduction to Old Testament Literature** (4 credits)
A study of the types of literature found in the Old Testament. Identical with CLS 211 and REL 211.
- ENG 224** **American Writers: The Nineteenth Century** (4 credits)
An introduction to American literature of the last century with emphasis on writers such as Hawthorne, Melville, Whitman, and Twain, who form the core of the American literary tradition.
- ENG 225** **American Writers: The Twentieth Century** (4 credits)
A selective survey of modern and post-modern American writers, with attention to major works in several genres by such writers as Dreiser, Faulkner, Ellison, Stevens, and others.

ENG 240 Varieties of Literary Experience (4 credits)

This course teaches the future elementary school teacher how to distinguish and analyze various types of literature, e.g., short stories, poems, folktales, and the like. Attention to possible applications of materials and concepts to the teaching of language arts.

ENG 241 Chaucer, Shakespeare, Milton: Selected Works (4 credits)

Close examination of major works by these three authors.

ENG 242 From Classic to Romantic (4 credits)

A close examination of major texts of eighteenth and early nineteenth century English literature.

ENG 250 Film: A Literary Approach (4 credits)

This course explores the dramatic and narrative content of classic and modern films by treating such elements as theme, motif, symbol, imagery, structure, characterization, and cultural and philosophical implications. The course may be offered on an S/N basis at the discretion of the instructor.

ENG 285 Interdisciplinary Issues (4 credits)

The relationship of literature and literary study to a second discipline: science, philosophy, psychology, religion or the visual arts. The second area will vary from semester to semester.

Prerequisite: ENG 140.

ENG 300 Special Topics in Literature and Language (4 credits)

Special problems or topics selected by the instructor.

Prerequisite: ENG 140.

ENG 301 Studies in Literary Kinds (4 credits)

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

Prerequisite: ENG 140.

ENG 307 Modern Drama (4 credits)

Studies in English, American, and Continental drama since Ibsen.

Prerequisite: ENG 140.

ENG 308 Playwriting (4 credits)

A study of important plays from various historical periods, in various theatrical styles; an exploration of the fundamental principles and techniques of dramatic writing for the stage. The last half of the course will be devoted exclusively to student scripts. Enrollment limited to 20.

Prerequisite: Permission of the Instructor.

ENG 309 Scriptwriting (4 credits)

A study of selected screenplays and films, exploring the fundamental principles and techniques of dramatic writing, with emphasis on the unique problems posed by a medium that is primarily visual. The last half of the course will be devoted to student scripts. Focus alternates between comedy and drama in different semesters. Students may elect both semesters (8 credits) or either semester independently (4 credits). Enrollment limited to 20.

Prerequisite: Permission of the Instructor.

- ENG 310 Workshop in Writing (4 credits)**
Intermediate-level workshop for apprentice writers in fictive or discursive modes. Workshop may be in poetry, essay, fiction, etc., the emphasis varying from semester to semester according to interest and wishes of instructor.
Prerequisite: One of the following: ENG 201, 207, 208, 209, 210.
- ENG 311 Chaucer (4 credits)**
The major works, with emphasis on *The Canterbury Tales* and *Troilus and Criseyde*.
Prerequisite: ENG 140
- 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.
Prerequisite: ENG 140
- ENG 315 Shakespeare (4 credits)**
Reading and discussion of a representative selection of the play and poetry.
Prerequisite: ENG 140.
- 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.
Prerequisite: ENG 140.
- ENG 320 Development of American Poetry (4 credits)**
An introduction to American poetry, with emphasis on the seventeenth to the nineteenth centuries.
Prerequisite: ENG 140.
- ENG 322 Nineteenth Century American Fiction (4 credits)**
Selected readings in representative writers of the period.
Prerequisite: ENG 140.
- ENG 324 Issues in American Literature (4 credits)**
Study of literary works ranging across period and/or genre in their relation to a central issue, theme or problem in American literature. Representative topics are Romanticism, the Puritan Tradition, American Humor, and the Writer and American society.
Prerequisite: ENG 140.
- ENG 332 Modern American Fiction (4 credits)**
Readings in American fiction from Henry James to the present.
Prerequisite: ENG 140.
- ENG 333 Modern American Poetry (4 credits)**
Studies in the poetry of the first half of the twentieth century.
Prerequisite: ENG 140.
- ENG 340 Writing Now: Experimental Form (4 credits)**
Verbal arts in contemporary contexts. Writing and related arts—any or all combinations. Consideration of theory, and some emphasis on praxis.
Prerequisite: ENG 140.
- ENG 341 Selected Ethnic Literature (4 credits)**
Reading and critical analysis of representative selections from American ethnic literature. Special attention to groupings such as American-Jewish, Native American, etc., at discretion of instructor. Relation of ethnic literatures to dominant

national and international literary traditions considered.
Prerequisite: ENG 140.

ENG 342 Black American Writers (4 credits)

A study of black literary figures and of the black experience in literature.
Prerequisite: ENG 140

ENG 353 Old English Language and Literature (4 credits)

The literature of England from the beginning to the Norman Conquest. Primary focus on the Old English lyric and epic. An introduction to the language of the Anglo-Saxons, balanced with readings in modern translation.
Prerequisite: ENG 140

ENG 354 Medieval Literature (4 credits)

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

ENG 355 Literature of the English Renaissance (4 credits)

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

ENG 356 Drama of the English Renaissance (4 credits)

A survey of English drama (exclusive of Shakespeare) from 1590 to 1640.
Prerequisite: ENG 140

ENG 360 Seventeenth Century English Poetry (4 credits)

A study of seventeenth century poetry with particular emphasis on the schools of Jonson and Donne.
Prerequisite: ENG 140

ENG 366 Restoration and Eighteenth Century Drama (4 credits)

Study of Restoration comedy, tragedy, and the heroic play and/or the sentimental drama of the eighteenth century. Consideration given to French Neo-classical drama and its impact on theatre in England.
Prerequisite: ENG 140

ENG 367 The Restoration and Eighteenth Century (4 credits)

Studies in English poetry and prose from 1660 to 1800, with some attention to the development of the novel. Representative authors include Dryden, Swift, Pope, Johnson, Richardson, and Fielding.
Prerequisite: ENG 140

ENG 369 The English Novel (4 credits)

A study of representative English novels.
Prerequisite: ENG 140

ENG 370 The Romantic Period (4 credits)

Literature of the Romantic period with emphasis on major poets such as Wordsworth, Coleridge, Keats.
Prerequisite: ENG 140

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.
Prerequisite: ENG 140

ENG 375 Modern Literature (4 credits)

Modern British, American, and/or Continental literature, with concentration on the work of a small number of writers.
Prerequisite: ENG 140

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

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.
Prerequisite: ENG 140

ENG 390 Literary Theory and Critical Methods (4 credits)

Studies in modern critical methods, with particular emphasis on formal analysis, structuralism, and myth criticism. Practical application of critical approaches and techniques.
Prerequisite: ENG 140

ENG 391 History of Literary Criticism (4 credits)

The development of literary criticism, presented as a survey with emphasis on major theorists: Plato, Aristotle, Johnson, Coleridge, Arnold, Richards, Frye and others. Significant applications of theory examined.
Prerequisite: ENG 140

ENG 392 History and Theory of Film Criticism (4 credits)

Study of major critical approaches to film such as those of Sergei Eisenstein, Peter Wollen, Gene Youngblood and selected Structuralists.
Prerequisite: ENG 250, or a course in film.

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

Advanced topics and problems selected by the instructor.
Prerequisite: Four courses in English

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.
Prerequisite: Permission of the Instructor.

ENG 439 Faulkner (4 credits)

An intensive study of the fiction of William Faulkner, including attention to various critical approaches.
Prerequisite: Four courses in English

ENG 451 Major American Writers (4 credits)

Studies in one or two American writers to be selected by the instructor.
Prerequisite: Four courses in English

ENG 452 Major British Writers (4 credits)

Studies in one or two British writers to be selected by the instructor.
Prerequisite: Four courses in English

ENG 465 Shakespeare (4 credits)

Intensive analysis of four or five of the plays.
Prerequisite: Four courses in English

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.
Prerequisite: Four courses in English

ENG 470 W. B. Yeats (4 credits)

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

Prerequisite: Four courses in English

ENG 490 Advanced Criticism (4 credits)

Intensive studies in criticism, often concentrating on a single school.

Prerequisite: Four courses in English

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.

Prerequisite: 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/N grading basis.

Prerequisite: Four courses in English and permission of the Instructor.

Graduate Course Offerings

Primarily for graduate students. Courses on the 500-level are open to selected senior majors by permission of the instructor and the Chairman of the Department.

ENG 500 Advanced Topics in Literature and Language (4 credits)

Special topics and problems as selected by the instructor.

ENG 510 Literature and Composition (4 credits)

Form and style in prose and poetry. Exploration of relationships among the study of literature, the study of language, and composition. Experience in writing and criticism of writing. Designed for the teacher of English language and literature.

ENG 515 Shakespeare Institute (4 credits)

An intensive four-week consideration of Shakespeare's theatre and selected plays directed to the needs of secondary school teachers. Lectures, discussions, workshops, and trips to Stratford Productions.

ENG 533 Formal Analysis (4 credits)

An intensive study of approaches to specific works of literature in and of themselves and an examination of techniques appropriate to those approaches.

ENG 534 Language History (4 credits)

An intensive study of the development of standard English through an examination of texts that are representative of Early Modern English, Middle English, and Old English.

ENG 541, 542 Literary History (4 credits)

Work in a different literary period each semester with emphasis on concepts, approaches and methodology appropriate to the literary historian. Literature in historical perspective and in cultural and social contexts. Either semester may be elected independently.

ENG 561, 562 Literary Kinds (4 credits)

Study in each semester of a single genre (such as novel, lyric, or drama) or mode (tragedy, comedy, pastoral). Consideration of similarities and differences among individual works, and of the relationship of the kind under discussion to the body of literature as a whole. Either semester may be elected independently.

ENG 597 Apprentice College Teaching (4 credits)

An introduction to teaching English at the college level. Internship with assigned professor in a course offered at Oakland or a cooperating community college. To be arranged in the semester preceding that in which the course is taken. By permission only.

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 18th Century Literature (4 credits)

ENG 645 Studies in 19th 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: John Barnard

PROFESSORS: Charles W. Akers, John Barnard, Richard M. Brace, Melvin Chernov, 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, 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 college teaching and other forms of professional historical scholarship. It also provides opportunities in elementary and secondary school teaching through the elementary education major and minor concentrations in History/Social Science and the secondary teaching minor in History. Moreover, its emphasis on broad knowledge, critical judgment, and precise writing offers 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 gradu-

ate program of study leading to the degree of Master of Arts. For further information on the graduate program, consult the Graduate Bulletin; 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 advisor, following a pattern leading either to further study of history in graduate school or to enrollment in a postgraduate professional program. There is also a pattern for majors who wish to concentrate in Area Studies (see page 251).

Students can select from a variety of history courses offered at night each semester. It is possible for students who work during the day to complete their degree programs in history entirely through the courses offered in the Evening Program. The Department of History grants advanced placement in accordance with the University policy as explained on p. ??? of this catalog.

Majors who wish to qualify for departmental honors should submit an application to the History Honors Committee. There is no statutory lower grade point limit, but the Department has seldom, if ever, awarded honors to a major with less than a 3.5 average in history courses. Submission of a paper, prepared in connection with regular course work and significantly more ambitious in research and bibliographic scope than a book review, is required. The original of the paper, with the instructor's comments and grade, is stipulated, although in rare circumstances a xerox or other facsimile may be accepted. No more than one-third of the majors graduating in a given semester may be awarded departmental honors, according to University policy.

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. A major may count no more than 8 credits in HST 100 (Topics in History), and no more than 16 credits in independent study (HST 391, HST 491) for the ten course major. No specific courses are required in the major, but the student is advised to plan his or her major in consultation with a faculty adviser. 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 requires five Department of History courses (20 credits), including HST 214, 215.

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. Recommended for students with little or no background in college level history. Offered each semester.

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

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

HST 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 American History (4 credits each)

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

HST 214 is a survey of American political, economic, and social 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 nineteenth century

HST 277, 278 Survey of Japanese History (4 credits each)

An integrated series of courses offering an introduction to Japanese history from pre-Buddhist times to the present.

HST 277 is a survey of Japanese history from the pre-Buddhist period to the Tokugawas, with discussion of cultural and intellectual developments. Offered in the Fall Semester.

HST 278 is a survey of 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 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 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 Semester.

HST 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 Semester. Identical with REL 307.

HST 310 The Young Republic and the Age of Jackson, 1787-1850 (4 credits)

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

HST 312 The Civil War and Reconstruction, 1850-1876 (4 credits)

The origins of secession, the wartime problems of the Union and the Confederacy, the principal military campaigns, the Reconstruction Era and the creation of a new Union, and the significance of the Civil War and Reconstruction in American history. Offered each year.

HST 313 American History, 1876-1900 (4 credits)

The New South, industrial consolidation, the origins of the modern labor movement, the rise of the city, immigration, agrarian protest movements, the businessman's philosophy, and the challenge to laissez faire. Offered in alternate years.

HST 314 American History, 1900-1928 (4 credits)

The social, political, and economic developments in the United States during the progressive era and the decade of the 1920's. Offered in alternate years.

HST 315 American History since 1928 (4 credits)

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

HST 316 American Intellectual History to 1860 (4 credits)

The history of American thought from the colonial period to the Civil War, emphasizing New England Puritanism, the transition from colonies to provinces, the era of the American Revolution, and the origins of modern America. Offered in the Fall Semester.

HST 317 American Intellectual History since 1860 (4 credits)

Major intellectual trends in the United States from the Civil War to the present, including such topics as ideological conflict during the Civil War and Reconstruction, the impact of evolutionary thought, and responses to industrialization and urbanization. Offered in the Winter Semester.

HST 318 Topics in American Social History (4 credits)

Selected topics in the history of popular beliefs, social structure and organization, and the process of social change, including movements of reform. Offered in alternate years.

HST 319 History of the American South (4 credits)

The South from colonial times to the 1960's, emphasizing the transition from the agrarian, slave South of the antebellum period to the modern South of the twentieth century. Offered each Winter Semester.

HST 320 U. S. Diplomatic History to 1898 (4 credits)

The origins, formulation, and development of American foreign policy and diplomacy from the Revolution to the Spanish-American War, including such topics as neutrality and isolationism, the Monroe Doctrine, Manifest Destiny, and the Civil War. Offered in alternate years.

HST 321 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)

This course follows a seminar format: group reading and discussion, combined with individual research, on such topics as the history of Afro-American history, interpretations of the Afro-American experience, bibliographical and research materials, materials and perspectives useful in the teaching of Afro-American history. Offered each year.

Prerequisite: HST 292.

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 pre-modern society. Offered in alternate years.

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.

- HST 335 Twentieth Century Britain (4 credits)**
The British adjustment to global wars, the later industrial revolution, mass democracy, and social change.
- HST 337 Hellenic Greece (4 credits)**
Greek history from the Bronze Age to the Peloponnesian War. Identical with CLS 337.
- HST 339 Republican Rome (4 credits)**
Roman history from the regal period to the end of the Republic. Identical with CLS 339.
- HST 340 Imperial Rome (4 credits)**
Roman history from the principate of Augustus to the fall of the western empire. Identical with CLS 340.
- HST 341 Europe since 1914 (4 credits)**
An analysis of Europe in world perspective since World War I. Offered each 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 each year.
- HST 345 France since 1789 (4 credits)**
The political development of modern France as a nation-state and the cultural and economic movements connected with French public life. Offered each 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 ancien régime in France from the end of the wars of religion to the beginning of the Revolution (1589-1789). Offered in alternate years.
- HST 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.

Prerequisite: 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.

Prerequisite: 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 slavophiles, the westernizers, the populists and socialists, and several of the great realistic writers. Offered in alternate years.

Prerequisite: 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 each year.

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.

Prerequisite: 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 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 each year.

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 China (4 credits)

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

Prerequisite: AS 062.

HST 375 Topics in Chinese Intellectual History (4 credits)

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

HST 376 History of Chinese Communism 1921 to the Present (4 credits)

The Chinese Communist movement from its initial emergence in the wake of the May Fourth Movement of 1919 to the current period of reassessment and consolidation following the Cultural Revolution of the late 1960's. The course will focus on the Chinese Communist Party, as the organizer and vanguard of a social revolutionary armed struggle for power up to 1949, and as the leadership core of the People's Republic of China since that time.

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 India and Pakistan (4 credits)

The establishment of Muslim Power and culture in South Asia, its accommoda-

tion with Hindu culture, the Mughal empire and its decline, and the rise of modern Islamic nationalism, leading to the creation of Pakistan and Bangla Desh. Offered in alternate years.

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

India's political revolution in gaining independence against British imperialism. In contrast with China, India's failure to achieve the revolution of social and economic democracy.

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 each year.

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

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.

Prerequisite: AS 064 or HST 287.

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

Independent but directed readings designed for junior and senior majors in fields of history in which advanced courses are not available. Offered each semester. Prerequisite: Permission of the instructor.

HST 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 CLS 396. Offered at irregular intervals.

HST 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 CLS 397. Offered at irregular intervals.

HST 398 The Jew in the Middle Ages (4 credits)

Emphasizes relationships between Jews and political authorities, but covers changes in the emotional, religious, practical, and legal contest of Jewish life from the early Middle Ages to the sixteenth century. Offered in alternate years.

HST 400 Seminar: Advanced Topics in History (4 credits)

Reading, research, and discussion on a selected historical topic or period. Since topics will vary from semester to semester, students should consult the Schedule of Classes every term. Offered each year. May be repeated for credit.

HST 481 Seminar in Historiography (4 credits)

Reading and research in topics analyzing the literature of historical inquiry and

writing from the Greeks to the present. Offered irregularly.
Prerequisites: Four history courses.

HST 491 Directed Research in History (4, 8, or 12 credits)

Directed individual research designed for advanced history majors. Offered each semester.

Prerequisite: Permission of the instructor.

Graduate Courses

Most 300-level courses may be taken for graduate credit as 500-level courses. For additional information about these courses, students should consult the Graduate Bulletin.

The following courses are normally restricted to graduate students.

HST 591	Directed Reading	(4 credits)
HST 600	Comprehensive Examination	(2 credits)
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)
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); Gayle H. Partmann (Linguistics and Sociology and Anthropology)

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 is concerned with the objective study of language, language history, comparison of languages, and with theories about human languages and their implications 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 and information science, language teaching, speech pathology, sociology, and dialectology, and has produced the new disciplines of biolinguistics, mathematical linguistics, psycholinguistics, and sociolinguistics 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, a secondary teaching major in language arts 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 or who wish to teach 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, program 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.

Requirements 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.

Foreign Language

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.

Cognates

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.

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 Elective
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

LIN 404
Elective
Elective
Elective

SECONDARY TEACHING MAJOR IN LANGUAGE ARTS

A new teacher education major is available through the Department of Linguistics, combining selected courses from linguistics, English, speech communication, and education. The program provides a sound basis for teaching writing and critical reading of literature and of exposition. Attention is placed on an objective understanding of how language works so that the future teacher may effectively guide students towards improved communication.

The program includes the study of social and geographical dialects in the United States, the relationship of language to culture and subculture, standard and non-standard English grammars, the teaching of reading and writing, oral skills, and methods in literary analysis, as well as a survey of important American and English authors.

The Major Sequence

A total of fifty-six (56) credits is required. This includes twenty-four (24) credits in linguistics (including grammar), sixteen (16) credits in English literature, four (4) credits in advanced com-

position, four (4) credits in speech communication, and eight (8) credits in reading. The course pattern required is the following:

I. Linguistics and Reading

Linguistics 176	The Nature of Language: Its Humanity or
Linguistics 276	Language in Culture
Linguistics 277	Sound Patterns of American English
Linguistics 301	Linguistic Structures
Linguistics 404	Grammatical Analysis
Linguistics 420	Linguistics and Reading
Education 338	Teaching Reading in the Content Area
One (1) elective in linguistics	

II. English and Speech

English 140	Introduction to Literary Studies
English 210	Fundamentals of Exposition
English 224	American Writers: The 19th Century or
English 225	American Writers: The 20th Century
English 241	Chaucer, Shakespeare, Milton: Selected Works
One (1) course in speech communication (SCN 201 or SCN 250 recommended)	
One (1) elective in the field of English	

III. Minor

A teaching minor must be elected. It may be a straight minor such as speech communication, or a group, or interdisciplinary, minor such as social studies. If an English minor is elected, students must take eight (8) additional credits in linguistics.

Secondary Teaching Major

A typical program, including a minor in Social Sciences, follows:

Semester 1	Cr.	Semester 2	Cr.
Learning Skills	4	Learning Skills	4
LIN 176 (or 276)	4	LIN 207	4
English 140	4	English 224 or 225	4
Distribution req.*		Distribution req.*	
Semester 3		Semester 4	
Education 244	4	Education 245	4
LIN 277	4	LIN 301	4
English 210	4	Soc. Sci. minor	4
Soc. Sci. minor	4	ELECTIVE	4

Semester 5		Semester 6	
LIN elective	4	LIN 404	4
English 241	4	English lit. elective	4
Speech Communication	4	Soc. Sci. minor	4
Soc. Sci. minor	4	ELECTIVE	
Semester 7		Semester 8	
Education 338	4	Education 428	4
LIN 420	4	Education 455	12
Soc. Sci. minor	4		
ELECTIVE	4		

*Distribution requirements would be satisfied as follows:

3 courses in Letters (English literature)	12 credits
3 courses in Social Sciences	12 credits
2 courses distributed in two out of Arts, Natural Sciences, and Area Studies	8 credits
	32 credits

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:

- six courses (24 credits) in linguistics, and
- 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 Concentrations in Linguistics

Concentrations in linguistics are 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 classical languages, 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 302, and two other courses 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 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 and American 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 history or grammar, 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 other 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.

LIN 276 Language in Culture (4 credits)

Language viewed as cultural behavior; its system, acquisition, and use; its relation to history and world view; language as both a reflection of, and influence on, attitudes and behavior; standard languages, social dialects, pidgins, and creoles; writing systems. Identical with AN 276.

Prerequisites: LIN 176, or AN 101, or AN 102, or permission of the Instructor.

LIN 277 Sound Patterns of American English (4 credits)

The fundamentals of articulatory phonetics with studies in American social and geographic dialects.

LIN 301 Introduction to Linguistic Structures (4 credits)

An introduction to synchronic linguistic analysis, with structural problems in natural languages.

LIN 302 Historical Linguistics (4 credits)

Diachronic linguistic analysis: language change, dialect geography, establishment of genealogical relationships, the reconstruction of earlier stages of languages, and the relationship of language change to synchronic analysis.

Prerequisites: LIN 301 or equivalent.

Prerequisites: LIN 301 or equivalent.

LIN 335 Psycholinguistics (4 credits)

A study of the psychology of language, the accommodation between the cognitive and physical structure of human beings and the structure of language, the nature of the language learning process, and the consequences of language use.





DEPARTMENT OF MATHEMATICS

CHAIRMAN: George F. Feeman

PROFESSORS: Harvey J. Arnold (on leave Fall 1974); Louis R. Bragg;
John W. Dettman; George F. Feeman; William C. Hoffman;
G. Philip Johnson; James H. McKay; Harvey A. Smith
(on leave Fall 1974)

ASSOCIATE PROFESSORS: Ronald A. DeVore; Jon Foremke;
Donald G. Malm; Irwin Schochetman (on leave Winter 1974);
Yel-Chiang Wu; Alfred Bartolucci; Richard Ewing; Jerrold Grossman;
Richard Molnar; Louis J. Nachman (on leave, 1974-5)

ASSISTANT PROFESSORS: J. Curtis Chipman; Robert Fontenot;
Gerald Garfinkel; Robert Sharpley

SPECIAL INSTRUCTOR: Raymond P. Guzman (Learning Skills &
Mathematics)

The Department of Mathematics offers programs of study leading to the degrees of Bachelor of Arts with a liberal arts major in mathematics, Bachelor of Arts with a 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, 255, 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 331, 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:

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 Skills Development 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, 543, 544

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 Com-

puter 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 180-181-382 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, electromagnetics, 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, 455, 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 OFFERINGS

Students should realize that while the Department will make every attempt to adhere to the scheduling of courses as presented in this catalog, special circumstances may occasionally necessitate changes. They should further realize that the program is constantly under review toward improvement and up-

dating of courses and options and thus the catalog may not be completely accurate because of timing. In such instances supplementary documents will be prepared and made available by the Department. Finally, on occasion some 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.

Prerequisites: Three years of high school mathematics.

MTH 127-128 Mathematics Laboratory (0, 1, 2 credits each)

Two-hour weekly laboratory to accompany courses on mathematics for the life sciences (MTH 123-124) or the social sciences (MTH 121-122), respectively. Graded S/N. Credits applicable to graduation but not the major.

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 157-158 Mathematics Laboratory (0,1,2 credits each)

Two-hour weekly laboratory to accompany MTH 154-155 (Calculus), respectively. Graded S/N. Credits applicable to graduation but not the major.

MTH 185-186 Mathematics—an Exploration into Undergraduate Topics (4 credits each)

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.

MTH 190 Topics in Mathematics (1 credit)

Intended to provide the superior student with an introduction to the type of abstract reasoning used in advanced courses in mathematics. The course will be organized around one or more topics chosen from various areas of mathematics. Enrollment is limited to freshmen. Offered in the Fall Semester.

Prerequisite: Permission of the Department. MTH 154, 155, 254, or 255 must be taken concurrently.

MTH 191 Topics in Mathematics (1 credit)

Similar to MTH 190. Enrollment limited to freshmen. Offered in the Winter Semester.

Prerequisite: Permission of the Department. MTH 155, 254, or 255 must be taken concurrently.

MTH 226 Applied Statistics (4 credits)

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.

Prerequisite: MTH 122, MTH 124 or MTH 154.

MTH 254 Intermediate Calculus and Linear Algebra (4 credits)

An introduction to linear analysis. Vectors, linear equations, linear transformations, matrices, determinants, eigenvalues, linear differential equations. Offered in the Fall and Winter Semesters.

Prerequisite: MTH 155.

MTH 255 Intermediate Calculus (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 257-258 Mathematics Laboratory (0,1,2 credits each)

Two-hour weekly laboratory to accompany MTH 254-255 (Linear Algebra and Calculus), respectively. Graded S/N. Credits applicable to graduation but not the major.

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 301 Elementary Set Theory and Arithmetic (2 credits)

Set notation, subsets, union, intersection, cartesian product, Venn diagrams. Arithmetic of fractions, laws of signs. Solving linear equations in one variable. Enrollment is limited to majors in elementary education. Graded S/N.

Prerequisite: Admission by Placement Exam.

MTH 310 The Integers (2 credits)

Ordinary and exotic algorithms for addition, subtraction, multiplication, and division. Radix Theory, historical numeration systems. Mathematics laboratory project. Enrollment is limited to majors in elementary education.

Prerequisite: Appropriately high score on placement exam or MTH 301.

MTH 311 The Rationals (2 credits)

The divisibility properties of the integers, primes, composites, units, the division algorithm. Rational numbers, equivalence of rational numbers, and operations on rational numbers. Various representations, including decimals, for rational numbers and algorithms for operating with these representations. Mathematics laboratory project. Enrollment is limited to majors in elementary education.

Prerequisite: MTH 310.

MTH 312 Intuitive Euclidean Geometry (2 credits)

Basic notions—points, lines, planes, angles, parallelism and perpendicularity, elementary geometry of the triangle, similarity, circles and regular polygons, figures in three-space. Mathematics laboratory project. Enrollment is limited to majors in elementary education.

Prerequisite: MTH 301 or appropriately high score on placement exam.

MTH 313 Geometry, Statistics, Probability (2 credits)

Length, area, and volume. Measures of central tendency and dispersion, graphical representation, the addition and multiplication principles of counting, probabilities of simple events. Mathematics laboratory project. Enrollment is limited to majors in elementary education.

Prerequisite: MTH 312.

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 \mathbb{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 Mathematical Science (4 credits)

The algebraic 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 505 Special Topics (4 credits)

Study of selected topics at the graduate level. May be taken more than once.

Prerequisite: Permission of the Department.

MTH 510 The Secondary Mathematics Curriculum (4 credits)

This is a seminar course which will examine in depth some of the problems of the secondary mathematics curriculum. Topics discussed will be determined jointly by the instructor and the students. Emphasis will be in the role and responsibility of the secondary teacher in developing the curriculum.

Prerequisite: Permission of the Department.

MTH 511 Mathematics for the Elementary School Teacher I (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 543-544 Advanced Operations Research I, II (4 credits each)

Convexity and optimization: Mathematical programming. Dynamic programming and the calculus of variations. Graph theory and networks. Game Theory. Queueing theory. The first term will be devoted to programming; the second term, to the other topics listed. Offered upon sufficient demand.

Prerequisite: 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 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 Research (2, 4, 6, or 8 credits)

Prerequisite: Permission of the Department.

MTH 614 History of Mathematics (4 credits)

Mathematics from ancient to modern times, its growth, development, and place in man's culture. Designed for MAT candidates.

Prerequisite: Permission of the Department.

MTH 625 Probability and Statistics (4 credits)

Sample spaces, combinatorics, random variables, Chebyshev's inequality, Ber-

noulli trials, binominal and normal distributions, joint distributions, introduction to statistics. Selected mathematics laboratory activities.
Prerequisite: Permission of the Department.



DEPARTMENT OF MODERN LANGUAGES AND LITERATURES

CHAIRMAN: Jack R. Moeller.

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*), Munibur Rahman (*Hindi-Urdu*), Carmen M. Urla (*Spanish*).

ASSISTANT PROFESSORS: Carol Coppola (*Hindi-Urdu*), Jerry M. Freeman (*Russian*), William D. Jaymes (*French*), John Marney (*Chinese*), David Saint-Amour (*French*).

INSTRUCTORS: Mariano Pallarés (*Spanish*),

SPECIAL INSTRUCTORS: Cordell W. Black (*French*), Lee M. Corrigan (*Russian*), Anna R. Massacesi (*Spanish*), Norbert Noeldechen (*German*), Shih-Chen Peng (*Chinese*)

VISITING LECTURERS: Joshua Chorowsky (*Hebrew*), Josef Levanon (*Hebrew*)

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 students for professional graduate work, for teaching at the secondary and elementary levels, and for careers in the business world or government service.

Students whose main interests lie in other fields may wish to investigate the advantages of combining them with competence in a foreign language. There are standard concentrations with Economics/Management and Linguistics." Such other majors as Area Studies, Political Science, English Literature, Art and Music are obviously enriched by a thorough knowledge of a foreign language. Students interested in study abroad, graduate work, or non-academic careers may get assistance in the Department from special advisors 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. 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.

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 work in French, German, or Spanish should take the placement test administered during the summer orientation. It tests skills acquired in the specific foreign language and helps to insure proper placement. Students are urged to consult with a member of the Department of Modern Languages about the results of the examination.

Programs of Study

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, area studies or economics/management; the liberal arts 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 advisor, plan individual programs to satisfy the degree requirements

Requirements for the Liberal Arts Major in a Modern Language

The requirement is 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. There are concentrations in French and linguistics, German and linguistics, Russian and linguistics, and Spanish and linguistics.

Requirements for the Liberal Arts Major in a Modern Language with a concentration in Economics/Management

A major in a modern language with a concentration in Economics/Management is available for interested students. It includes 24 credits in the language beyond 215; ECN 100 and 101; MGT 200; ECN/MGT 323 or 423. MGT 330 is desirable but not required. There is a corequisite of two courses (8 credits) chosen from Civilization, History, Area Studies, Political Science, Translation. The advanced language courses and corequisites must be chosen in consultation with a departmental advisor.

Requirements for the Liberal Arts Major in Chinese Language and Civilization

The requirement in Chinese for this major is 36 credits, ordinarily CHE 114-115, 214-215, and four others selected from departmental offerings in consultation with an advisor. 20 credits in China area courses beyond AS 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. 254 of this catalog.

Requirements for the Liberal Arts Major in Latin American Languages and Civilization

The requirement in Spanish for this major is 24 credits beyond SPN 214-215 selected from departmental offerings in consultation with an advisor. An additional 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 16 credits in Spanish beyond SPN 214-215, and 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 36 credits, ordinarily RUS 114-115, 214-215, and four others selected from departmental offerings in consultation with an advisor. 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. of this catalog.

Requirements for the Secondary Teaching Major in a Modern Language

The requirement is 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 8 additional credits at the 400-499 level. German majors are expected to take ENG 140 in their second or third year. In addition, 24 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 20 credits in one language. Of these credits, 16 must be beyond the 215 level. 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 36 credits in one language (including elementary and intermediate courses). For complete details on other requirements, including courses in education, see p. 325.

NOTE: All prerequisites may be waived by the Department, in accordance with University policy. Students should consult the course instructor.

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.

CHE 310 Literary Chinese (4 credits)

Studies based upon literary texts of Confucius, Mo Tzu, etc.

Prerequisites: CHE 215.

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.

CHE 320 Readings in Chinese Newspapers (4 credits)

Selections from newspapers of mainland China, Taiwan, and southeast Asia.

Prerequisites: CHE 215.

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.

CHE 340 Twentieth Century Chinese Literature (4 credits)

Studies in the modern pai-hua literature, including short-stories, poems, essays, pamphlets.

Prerequisites: CHE 215.

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.

CHE 421 Selected Classical Texts (4 credits)

Studies of texts in advanced literary Chinese.

Prerequisites: CHE 310 or CHE 312.

CHE 431 Classical Chinese Stories (4 credits)

Studies of selected stories from different classical Chinese sources.

Prerequisites: CHE 310 or CHE 312.

CHE 440 Chinese Poetry (4 credits)

Selections from either classical Tang and Sung Dynasty poems or from the post-May-4th movement of poetry.

Prerequisites: CHE 310, or CHE 320.

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 or in Modern Chinese.

Prerequisites: Major standing and permission of the Instructor.

French Language and Literature

FRH 007 La Puissance Treize (French Acting Troupe) (1 credit)

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, First Semester (4 credits each)

FRH 102 Reading French, Second Semester

Reading comprehension of French. Attention is not given to pronunciation or to understanding of the spoken language.

FRH 114 First Semester French (5 credits each)

FRH 115 Second Semester French

Fundamentals of speaking, reading and writing French. A beginning course, intended for students who have never had French or who have had no more than one year of secondary school preparation.

FRH 201 Reading French, Third Semester (4 credits each)

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.

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.

FRH 216 Elementary French Conversation (2 credits)

To develop the student's 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 Translation (4 credits each)

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.

FRH 287 Black French Literature in Translation (4 credits)

Selections from black authors in French-speaking Africa and the West Indies. Study of the expressions of African culture from the continent (North Africa, West Africa), as well as that literature developing in these different environments: Martinique, Haiti, Guadeloupe. Readings, lectures, discussions in English. Open to French majors as elective only; does not carry credit toward departmental major.

Prerequisites: Sophomore standing.

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.

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.

FRH 316 Advanced French Conversation (2 credits)

To develop the student's 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.

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.

FRH 351 French Civilization (4 credits)

An overview of contemporary life, education, and socio-economic conditions in France and other French-speaking countries. Conducted in French.

Prerequisite: FRH 215.

FRH 363 Translating French (4 credits)

Translation from French to English of a wide variety of materials, ranging from

commercial and technical to literary. Individual students may choose to emphasize the most appropriate areas. Study of both languages will facilitate the conversion of French into accurate, idiomatic English.

Prerequisite: FRH 201, 215, or equivalent.

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.

**FRH 369 Field Experiences in French Teaching (2, 4, 6, 8 credits)
in the Lower the Lower Grades**

Provides supervised experiences in teaching French in the elementary school. Graded S/N.

Prerequisite: FRH 115 or the equivalent.

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 of this pivotal, turbulent period as seen in selected works of principal authors such as Rabelais and Montaigne. Conducted in French.

Prerequisite: FRH 372.

FRH 421 Seventeenth Century French Literature (4 credits)

The development and character of French classicism. Studies in the principal authors: Racine, Molière, etc., of this contradictory period. Conducted in French.

Prerequisite: FRH 372.

FRH 431 Eighteenth Century French Literature (4 credits)

The philosophical spirit of enlightenment and the encyclopedists, Diderot, Voltaire, etc. The beginnings of romanticism with such authors as Rousseau and Mme. de Stael. Conducted in French.

Prerequisite: FRH 372.

FRH 441 Nineteenth Century French Literature (4 credits)

The flowering of romanticism and the beginnings of realism and naturalism. Hugo, Musset, Balzac, Stendhal, Zola, etc. Conducted in French.

Prerequisite: FRH 372.

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.

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.

FRH 461 Advanced Composition and Conversation (4 credits)

Intensive oral work designed to perfect conversational ability. Extensive written work to increase the student's skill in original composition. Analysis of style in selected passages from French authors. Strongly recommended for all students, especially those planning to teach at the elementary level. Required for secondary teaching majors.
Prerequisite: FRH 312.

FRH 480 Seminar in French Literature (4 credits)

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

FRH 490 Independent Reading and Research (2, 4, or 8 credits)

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

FRH 580 Seminar in French Literature (4 credits)
German Language and Literature**GRM 114 First Semester German (5 credits)**
GRM 115 Second Semester German (each)

Fundamentals of speaking, reading and writing German. A beginning course intended for students who have never had German or who have had no more than one year of secondary school preparation.

GRM 201 Reading German, Third Semester (4 credits)**GRM 202 Reading German, 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 German or the equivalent.

GRM 214 Third Semester German (5 credits)**GRM 215 Fourth Semester German (each)**

Continued development of ability in spoken and written German; reading of literary and cultural texts.

Prerequisites: GRM 115 or the equivalent.

GRM 285 German Literature in Translation (4 credits)

A survey of German literature from the Enlightenment to the present day. Lectures and readings in English. Open to German majors as elective only; does not carry credit toward departmental major. Offered in alternate years.

Prerequisites: Sophomore standing.

GRM 290 Directed Readings in German (2 or 4 credits)

A reading course for non-majors interested in research in a particular area. Approximately 50 hours of reading per credit; one conference weekly with the instructor. May be repeated for credit.

Prerequisites: GRM 202, or GRM 215.

GRM 311-312 German Composition and Conversation (4 credits each)

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.

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 LIN 365.

Prerequisites: GRM 312.

GRM 369 Field Experiences in German Teaching in the Lower Grades (1, 2, 4 or 8 credits)

Provides supervised experiences in teaching German in the elementary school.

Prerequisites: GRM 115 or the equivalent. Graded S/N.

GRM 371, 372 Introduction to German Literature (4 credits each)

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

HBR 215 Fourth Semester Hebrew

Continued development of ability in spoken and written Hebrew; reading of literary and cultural texts.

Prerequisites: HBR 115 or the equivalent.

HINDI-Urdu Language**HIUR 114-115 First Year Hindi-Urdu (5 credits each)**

An introduction to the basic structure of both Hindi and Urdu with an emphasis on both conversation and reading. The course will stress the core vocabulary common to both languages; in addition, both Devanagari and Persio-Arabic scripts will be used interchangeably.

HIN 214-215 Second Year Hindi (5 credits each)

A continuation of HIUR 114-115, with an emphasis on the literary and spoken language of Hindi.

URD 214-215 Second Year Urdu (5 credits each)

A continuation of HIUR 114-115, with an emphasis on the literary and spoken language of Urdu.

HIN 311-312 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.

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: Urdu 215.

HIU 490 Independent Reading and Research (2, 4, or 8 credits)

Directed individual research and reading designed for advanced Hindu-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. A beginning course intended for students who have had no Italian or 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 Italian; 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. A beginning course intended for students who have had no Portuguese or who have had no more than one year of secondary school preparation.

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.

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.

RUS 114 First Semester Russian (5 credits)**RUS 115 Second Semester Russian (each)**

Fundamentals of speaking, reading and writing Russian. A beginning course intended for students who have had no Russian or 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.

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 cen-

tury. Lectures and readings in English. Open to Russian majors as elective only; does not carry credit toward departmental major.
Prerequisites: Sophomore standing.

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.

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.

RUS 228 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.

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.

RUS 311-312 Russian Composition and Conversation (4 credits each)

Devoted to increasing the student's command of the language and familiarizing him with the 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.

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.

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 emigré 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.

SPN 105 Spanish for Doctors and Nurses (2 credits)

Designed to prepare students in the medical field to communicate more effectively with Spanish-speaking patients. Basic rules of the language, practical phrases and technical vocabulary are taught.
Prerequisites: None

SPN 114 First Semester Spanish (5 credits each)

SPN 115 Second Semester Spanish

Fundamentals of speaking, reading and writing Spanish. A beginning course intended for students who have had no Spanish or 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.

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.

SPN 285, 286 Spanish and Spanish American Literature in Translation (4 credits each)

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.

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.

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.

SPN 311-312 Spanish Composition and Conversation (4 credits each)

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.

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 LLN 365.

Prerequisites: Junior standing.

SPN 371, 372 Introduction to Spanish Literature (4 credits each)

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 American Literature (4 credits)

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 Ages and Renaissance (4 credits)

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 Eighteenth and Nineteenth Centuries (4 credits)

Masterworks of the period in peninsular literature.

Prerequisite: SPN 372.

SPN 461 Advanced Composition and Conversation (4 credits)

Intensive oral work designed to perfect conversational ability, with emphasis on phonetics and diction. Extensive written work to increase the student's skill in original composition. Analysis of style in selected passages from 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 Literature (4 credits)
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.

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.

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 in English Translation (2 or 4 credits)

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.

MLT 350 Problems of Translation (4 credits)

Lectures, discussion and practical work on questions of literal vs. free rendition, idiomatic usage, etc. Use of a variety of written forms: letters, pamphlets, articles, historical documents, literary works. Course given in English and not applicable to major requirements for languages.

Prerequisite: two years of a foreign language.





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; Flavio Varani

SPECIAL INSTRUCTORS: John Dovaras; Alice Engram

APPLIED MUSIC INSTRUCTORS: James Allen (*jazz drums*); Paul Allen (*trumpet*); Donald Baker (*oboe*); Joan Berndt (*woodwinds*); Marcus Belgrave (*jazz trumpet*); Douglas Cornelsen (*clarinet*); Mario DiFiore (*cello*); LeRoy Fenstermacher (*viola*); Norman Fickett (*percussion*); Derek Francis (*violin*); Robert Gladstone (*string bass*); Wesley Jacobs (*lower brass*); Jack Kripl (*saxophone*); Lyell Lindsey (*bassoon*); Kent McDonald (*piano/organ*); Harold McKinney (*jazz piano*); Ervin Monroe (*flute*); Patricia Nordstrom (*early instruments*); Edward Pickens (*jazz string bass*); Robert Reberger (*classical guitar*); Samuel Sanders (*jazz saxophone*); Raymond Turner (*trombone*).

The Department of Music is committed to the continuous evolution and expansion of the entire music program and to the active participation of students in this evolution. The music curriculum is unique in many respects. For this reason, it is absolutely necessary to read the MUSIC HANDBOOK (available from the music office, room 312 Varner Hall) and to consult with a departmental advisor before beginning a music degree program. Note that all incoming freshmen and transfer students are expected to audition during the first week of classes in order to qualify for their chosen performing medium.

STUDENT LIFE AND 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.

THE CERTIFICATE SYSTEM

The Department of Music uses a certificate system which ena-

bles 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 the courses offered, by independent study, or by combining the two.

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.

PROGRAMS OF STUDY

There are three degree programs now available for music majors:

1. Bachelor of Arts in Music:

48 credits of music and the completion of four certificates: 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 eight certificates: the four required for the B.A. degree plus Performance Minor, Keyboard Proficiency, and two elective certificates such as Advanced Theory, composition, Advanced Music History, Instrumental Studies, Choral Studies, Church Music, Pedagogy, Jazz, Early Music, and Performance Honors. With the approval of the Department, students may design individualized certificates.

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 eight certificates: the four 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.

A TYPICAL PROGRAM

A typical program for a music student will include each semester, applied music study on his major instrument or voice, a departmental ensemble, and a theory course (freshmen should select MUS 210, or, for those students with weak background, MUS 111). A class in keyboard technique (such as MUS 371) is strongly recommended for students without previous piano study.

SYMBOLIC SYSTEMS REQUIREMENT

The nature of the music profession makes proficiency in one or more foreign languages extremely useful. Therefore, music majors must complete a fourth semester foreign language course, or demonstrate equivalent proficiency. German is particularly recommended for those interested in music theory or music history; Italian is recommended for voice students. There are two exceptions to this requirement:

1. Students interested in a field where computer programming may be useful (such as theory/composition) may satisfy this requirement with two semesters of computer programming and two semesters (or equivalent proficiency) of foreign language.
2. For students in Music Education, this requirement is reduced by half, and may be satisfied in any of the following ways:
 - a. Two semesters of a foreign language, or equivalent proficiency.
 - b. Two four-credit courses in computer programming. Courses taken to satisfy this departmental requirement may also count toward the General Education Requirement and/or the Secondary Teaching Minor.

NOTE: All prerequisites may be waived by the Department, in accordance with University policy. Students should consult the course instructor.

ENSEMBLES

MUS 101 **University Chorus** (1 or 2 credits)

Performance of the larger choral masterpieces from all music periods.

MUS 102 **Oakland University Singers** (2 credits)

Performance of a wide range of choral chamber repertoire from Renaissance to the present. Permission of the Instructor.

MUS 103 **Collegium Musicum** (1 or 2 credits)

Performance of Medieval, Renaissance, and Baroque music. Present groups include the Renaissance Band, the Collegium Singers, the Renaissance Ensemble, and the Baroque Ensemble. Permission of the Instructor.

MUS 104 Wind Ensemble (1 or 2 credits)

An exploration of the literature written for wind ensembles of various 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)

A festival-type mixed chorus for citizens of the surrounding communities, possessing prior vocal experience. Performances of varied choral literature. Meets in the evening.

MUS 109 Opera Chorus (1 or 2 credits)

An ensemble which performs in conjunction with the Michigan Opera Theatre. Permission of instructor.

MUS 113 Guitar Ensemble (1 or 2 credits)

A study of performance practice and techniques of classical guitar literature involving two or more players.

MUS 220 Chamber Music (2 credits)

Performing ensemble of various instrumentations. A wide spectrum of appropriate music literature, medieval through contemporary.

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 MUS-322 recommended.

APPLIED MUSIC

MUS 160-189 and MUS 191-196 are individually taught lessons, 2 credits each, and involve an applied music fee. See page 24.

MUS 160 Voice**MUS 161 Piano****MUS 162 Organ****MUS 163 Harpsichord**

MUS 164	Violin
MUS 165	Viola
MUS 166	Violoncello
MUS 167	String Bass
MUS 168	Flute
MUS 169	Oboe
MUS 170	Clarinet
MUS 171	Bassoon
MUS 172	French Horn
MUS 173	Trumpet
MUS 174	Trombone
MUS 175	Tuba
MUS 176	Timpani
MUS 177	Percussion
MUS 178	Harp
MUS 179	Guitar (Classical)
MUS 180	Renaissance Winds (Krummhorns, Recorders, etc.)
MUS 181	Viola da Gamba
MUS 182	Lute
MUS 183	Recorder
MUS 184	Saxophone

- MUS 191** Piano (jazz)
MUS 192 Guitar (jazz)
MUS 193 Trumpet (jazz)
MUS 194 Saxophone (jazz)
MUS 195 Percussion (jazz)
MUS 196 Dbl. Bass (jazz)

MUS 189 Performance Honors (2 or 4 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 and MUS 191 through MUS 196).
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. Usually offered in summer only.
Prerequisite: Permission of the instructor.

The following applied music courses are group lessons, 2 credits each, and involve an applied music fee. See page 24.

- MUS 360** Class Voice
Elementary aspects of singing, including diction, breath control, projection, and repertoire.
- MUS 365** Class Recorder
- MUS 366** Class Viola da Gamba
- MUS 367** Class Lute
- MUS 368** Class Renaissance Winds

MUS 371-372-373-374 Keyboard Technique
Designed to develop the basic keyboard facility essential to the equipment of any musician and to acquaint him with keyboard literature. Music majors planning to register for this course should indicate such intention to the Department of Music at the time of their first registration in the University.
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 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 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.

MUS 314 Techniques of Musical Analysis (4 credits)

Techniques of analysing works of various styles and periods, though with emphasis on tonal music.

Prerequisites: MUS 210; MUS 310 or MUS 315 recommended.

MUS 315 Tonal Counterpoint (4 credits)

The contrapuntal style of the eighteenth century; composition and analysis.

Prerequisites: MUS 210.

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, MUS 314, or MUS 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, MUS 381, MUS 382, MUS 404, MUS 412.

Prerequisites: Either MUS 310, MUS 314, or MUS 315.

MUS 412 Twentieth Century Techniques (4 credits)

Compositional practices in the twentieth century; composition and analysis.

Prerequisites: Either MUS 310, MUS 314, or MUS 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, MUS 314, or MUS 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.

MUSIC HISTORY and APPRECIATION**MUS 100 Introduction to Music (4 credits)**

An introduction to the techniques of listening to great music, and a study of its elements, forms, and styles. Begins at the level of the student lacking previous musical experience. An elective course for non-music majors.

MUS 250 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 251 African Through
Afro-Caribbean Music (4 credits)**

A study of African music and its transmutation into Afro-Caribbean music. The concentration in African traditions will be predominantly those of the West African cultures directly related to the transplantation into the Western Hemisphere through slavery.
Prerequisites: None.

MUS 252 Afro-American Music (4 credits)

A study of the evolution and development of the music culture of Afro-American people in the United States. An investigation into the origins and cultural roots of music of Afro-Americans and other American music.
Prerequisites: None.

**MUS 321 Music History and
Literature to 1750 (4 credits)**

History and literature of music through the Baroque period. Designed primarily for music majors. Offered each fall semester.
Prerequisites: MUS 210.

**MUS 322 Music History and
Literature Since 1750 (4 credits)**

History and literature of music from 1750 to the present. Offered each winter semester. Designed primarily for music majors.
Prerequisites: MUS 210.

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.

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.

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.

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.

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.

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 projection and multiple sensory methods. The effect of music on sacred texts.

MUS 490 Introduction to Music Bibliography (4 credits)

A course designed primarily for the music history and literature major. A rigorous and systematic introduction to basic research materials and methodology in musicology.

Prerequisites: MUS 321, MUS 322, and a 400-level theory course.

MUS 491 Directed Research in Music History (4 credits)

A program of directed individual reading and research designed for advanced music history majors.

Prerequisites: MUS 321, MUS 322, and a 400-level theory course.

MUSIC EDUCATION

MUS 149 Music as an Art and as an Elem. 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.

MUS 230 Studies in Choral Music (2 or 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 (2 or 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 & Literature (2 or 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 & 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) (4 credits)

Designed to provide the teacher with basic facilities and pedagogical techniques for the string family.

MUS 381 Instrumental Methods (Woodwinds) (4 credits)

Designed to provide the teacher with basic facilities and pedagogical techniques for the woodwind family.

MUS 382 Instrumental Methods (Brass & Percussion) (4 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.

MUS 401 Teaching Music in Elementary Schools (4 credits)

The organization and content of the general vocal music class in the kindergarten and the first six grades of elementary school. The development of musicality in the child through singing, playing instruments, listening to music, and participating in rhythmic activities. Special emphasis on teaching music reading and ear training to young children

Prerequisites: MUS 210 and a 300-level theory course.

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.

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.

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.

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 Conducting and Literature (1, 2, or 3 credits)

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.

MUS 481 Advanced Studies in Orchestral Conducting and Literature (1, 2, or 3 credits)

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.

MUS 494 Directed Research in Music Education (2 or 4 credits)

A program of directed individual reading and research in technology of, innovation in, and psychology of music instruction.

Prerequisites: Two courses from the series MUS 401, MUS 402, MUS 403, and MUS 404.

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. Usually offered in summer only.

Prerequisite: Permission of the instructor.

MUS 550 Repertory and Pedagogy of Jazz and Rock (2 credits)

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 Performance Practices (2 or 3 credits)

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.

DEPARTMENT OF PHILOSOPHY

CHAIRMAN: Richard J. Burke

PROFESSOR: Richard J. Burke

ASSOCIATE PROFESSOR: Richard W. Brooks

ASSISTANT PROFESSORS: Robert J. J. Wargo, Jack Cumbee, Conrad Brunk, J. Clark Heston.

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, major in philosophy with concentration in linguistics, and major in philosophy with concentration in religious studies. 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.

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 phi-

losophy, 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.

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. 251.

Requirements for the Major in Philosophy with Concentration in Linguistics

Six departmental courses (24 credits) are required, including PHL 101, PHL 370, and PHL 375. For requirements in linguistics, see p. 271.

Requirements for the Major in Philosophy with Concentration in Religious Studies:

Six departmental courses (24 credits) are required, including PHL 101 and PHL 225. For requirements in Religious Studies, see pg. 272.

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.

PHL 100 Topics in Philosophy (4 credits)

A study of one philosophic topic or problem, to be announced in the schedule of classes for each semester.

PHL 101 Introduction to Philosophical Thinking (4 credits)

Fundamental skills and questions in philosophy, including: how to read and write philosophy; what an argument is, and how to assess one; practice in clarifying concepts, such as absolute and relative, subjective and objective; similarities or differences between philosophy and other activities, such as science, religion, psychology, debating, and bull sessions. Offered every semester.

PHL 102 Introduction to Logic (4 credits)

Study of the relationship between conclusions and statements offered in support of them. Will include some analysis of deductive arguments using some of the apparatus of modern symbolic logic, and may include the study of other kinds of arguments (e.g., analogical, inductive, practical) or of uses of language. Offered every semester.

PHL 103 Introduction to Ethics (4 credits)

Systematic reading and discussion of major ethical analyses of the distinction between right and wrong, good and evil. Appeals to custom, theology, happiness, reason, and human nature will be examined as offering viable criteria for judgments on contemporary issues of moral concern. Offered every year.

PHL 204, 205, 206, 207 History of Western Philosophy (4 credits each)

The development of systematic philosophical thought in the Western world from its beginnings in the Mediterranean region to the present, with extensive readings in the works of major philosophers. The four courses are:

PHL 204: Classical Greek Philosophy (beginnings to Aristotle);
Identical with CLS 204.

PHL 205: Hellenistic and Medieval Philosophy (Stoics to the Renaissance);

PHL 206: Early Modern Philosophy (Galileo to Kant);

PHL 207: Recent Philosophy (Hegel to the present).

Each course may be taken separately, although together they present a continuous development. Offered in sequence, so that each course is offered every other year.

PHL 219 Aesthetics (4 credits)

Systematic examination of the nature of aesthetic experience and aesthetic judgment in the appreciation of both nature and art. Critical analysis of major theories, old and new, of the creation and structure of works of art, the psychology of aesthetic perception, and the logic and semantics of aesthetic judgment. Offered every other year.

PHL 221 Theories of Justice, Power, and Freedom (4 credits)

The meanings of central concepts in political philosophy, 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 225 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. Identical with REL 225.

PHL 240 Philosophy of Rhetoric (4 credits)

The problem of "objectivity," philosophical justifications for a distinction between persuasion and proof, between propaganda and information, etc., and the consequences of denying such a distinction. Readings will include Plato's *Gorgias*, Aristotle's *Rhetoric*, and recent books and articles on reasoning and communication. Identical with SCN 310.

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. Identical with REL 250.

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.

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 329 Philosophy of Science (4 credits)

A study of the philosophical problems arising from critical reflection on the sciences. Typical topics: the structure of scientific explanation, the nature of scientific laws and theories, causality, confirmation. 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. 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 philosophical 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. Recommended: PHL 207.

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. Recommended: PHL 207.

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. Offered every year.

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 other 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 other 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, W. D.
Wallace

ADJUNCT ASSOCIATE PROFESSOR: Norman H. Horwitz

ASSISTANT PROFESSOR: Paul M. Doherty, Jeffrey V. Mallow

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 also complete the Medical Physics Concentration 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 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 Concentration in Medical Physics (see p. 265)

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 credits—BIO 112, 114, and 222 should 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 courses in Radiology, Nuclear Medicine, and Medical Instrumentation. An additional 4 credit in-hospital practicum 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	Winter
Semester 1	Semester 2
CHM 114	PHY 151
CHM 117	CHM 115
MTH 154	CHM 118
PHY 150	MTH 155
Learning Skills or	Learning Skills or
Distribution Requirement*	Distribution Requirement*
Fall	Winter
Semester 3	Semester 4
PHY 152	PHY 271
PHY 158	PHY 317
MTH 254	PHY 361
CIS 180	MTH 255
Distribution Requirement*	
Fall	Winter
Semester 5	Semester 6
PHY 318	PHY 341
PHY 331	PHY 347
PHY 351	PHY 381
PHY 371	MTH 431**
Distribution Requirement*	Distribution Requirement*
Fall	Winter
Semester 7	Semester 8
PHY 421**	PHY 482**
PHY 472**	PHY 490**
PHY 490**	Elective
Elective	Distribution Requirement*

*For general education requirements, see pp. 64.

**Suggested electives for students planning graduate work in Physics

CONCENTRATION IN MEDICAL PHYSICS

(A Typical Program)

Fall	Winter	Spring
Semester 1	Semester 2	PHY 158
PHY 150	PHY 151	CHM 191
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 247	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 318	PHY 361
PHY 331	PHY 317
PHY 371	PHY 381
MTH 254	MTH 255
Distribution Requirement*	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. 265.

**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 (4 credits each)

An introduction to classical and modern physics. Particle mechanics, wave motion, electricity and magnetism, properties of atoms and atomic systems are considered. Calculus is not required. Not intended for students majoring in physics, chemistry, engineering, or mathematics.

Prerequisites for PHY 101: High school algebra and trigonometry or MTH 134.
Prerequisites for PHY 102: PHY 101 or permission of the Instructor.

Each of the following 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 115 Energy (4 credits)

Basic physical principles of energy, sources, transmission, distribution. Political, economic and ecological considerations.

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 (4 credits)
in Contemporary Physics

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: None

PHY 151-152 Introductory Physics (4 credits each)

Mechanics, electricity and magnetism, wave motion, and optics for science, mathematics, and engineering students.
Prerequisite for PHY 151 is MTH 154.
Prerequisite for PHY 152 is PHY 151.
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 247 Introduction to Scientific Instrumentation (4 credits)

A lecture, demonstration and laboratory course in the use of various devices and techniques used in scientific research. Oscilloscopes, integrated circuits, operational amplifiers, and recorders. Instruments for radioisotope work: scintillation detectors, counters and scalars. Emphasis is on principles of operation rather than specific measurement systems. The laboratory experiments are related to the biological sciences as far as possible; thus, the above devices will be used to look at EKG, EEG, nerve transmission, blood pressure and radioisotope labeling.

Prerequisites: PHY 101, 102 or 151, 152 and one laboratory course in any science, or permission of instructor.

PHY 271 Introduction to Atomic and Nuclear Physics (4 credits)

A basic survey of atomic and nuclear physics, including elementary quantum effects, X-rays, wave-particle duality; uncertainty principle, relativity; the nuclear atom, atomic and nuclear structure, neutrons, natural and induced radioactivity, nuclear geophysics; penetration of charged particles in matter, absorption, range and energy, nuclear reactions, nuclear energy, cosmic rays, elementary particles; radiation applications, radiation dosimetry and protection; nuclear devices including scintillation detectors, photomultipliers, and pulse-height analysis. Recommended for all science and engineering students, especially those in premedical studies, health sciences, medical physics, etc.
Prerequisites: PHY 101, 102 or 151, 152.

PHY 305 Astrophysics (4 credits)

Gravitation, the solar system, the stars, the galaxies.
Prerequisites: PHY 152, PHY 158.

PHY 306 Observational Astronomy (2 credits)

A lecture/laboratory course utilizing the Oakland Observatory, providing the student with basic training in astronomical techniques.
Prerequisites: PHY 152, PHY 158.

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 325 Biophysical Science (4 credits)

A lecture course, emphasizing the physics of living systems: thermodynamics in biology, information theory, theories of ageing, biomolecular structure, nerve conduction, radiation biology. X-ray diffraction, scintillation spectroscopy, electron microscopy, laser light scattering and other physics techniques used in biology.

Prerequisites: PHY 102 or PHY 152, and MTH 155.

PHY 331 Optics (4 credits)

Geometrical optics, optical instruments, wave theory of reflection, refraction, interference, diffraction, and polarization of light.
Prerequisites: PHY 152, MTH 155.

PHY 341 Electronics (4 credits)

Circuit theory, vacuum tubes; transistors, power supplies, linear amplifiers, feedback, oscillators.
Prerequisites: PHY 152, PHY 158, MTH 155.

PHY 347-348 Electronics Laboratory (2 credits each)

A. C. Circuits and electronics experiments.

Corequisite for PHY 347 is PHY 341.

PHY 351 Intermediate Theoretical Physics (4 credits)

Introduction to the topics and techniques common to intermediate level physics courses.

Prerequisites: PHY 152 and MTH 254.

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 470 Relativity (4 credits)
Special relativity in mechanics and electromagnetism. Introduction to general relativity and gravitation.
Prerequisite: PHY 361 or PHY 371 or PHY 381.

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 and 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 522 Statistical Thermodynamics (4 credits)
Review of classical thermodynamics. Kinetic theory, including transport phenomena. Introduction to classical and quantum statistical mechanics.
Prerequisites: PHY 421

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 552 Theoretical Physics (4 credits)
Topics and techniques common to graduate level physics courses.
Prerequisites: PHY 361, PHY 371, PHY 381.

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 565 Physics of Continuous Media (4 credits)

An introduction to elasticity and fluid mechanics.

Prerequisites: PHY 361

PHY 573 Nuclear Physics (4 credits)

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

Prerequisite: PHY 472.

PHY 574 Introduction to Solid State Physics (4 credits)

An introduction to the thermal, electrical, and magnetic properties of solids (with emphasis on current experimental techniques), including periodic structure, lattice dynamics, electron interactions and behavior, transport properties, the Fermi surface and optical behavior, and superconductivity.

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 (on leave, 1974-1975)

ACTING CHAIRMAN: Roger H. Marz

PROFESSORS: Sheldon Appleton (on leave, Winter, 1975); Thomas W. Casstevens; Edward J. Heubel; Roger H. Marz; John E. Rue (on leave, Fall 1974)

ASSOCIATE PROFESSOR: James R. Ozinga

ASSISTANT PROFESSORS: Thomas W. Church, Jr.; Brian Coyer; L. Thomas Farley; Vincent Khapoya; John S. Marks; Neuman Pollack.

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, political behavior, 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. Presently available are concentrations in Public Management, Area Studies, Computer Information Science, and Journalism. These alternatives are described below.

Departmental honors are conferred upon graduates who successfully complete a PS 490 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 ten courses (40 credits) in political science including PS 100, PS 131, 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 except that no more than 12 credits of independent study (PS 290, PS 390, PS 490) may be offered toward the satisfaction of the major requirements.

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. Students might also consider Western Political Thought (PS 272, 273) or Communism (PS 277). Political science majors are required to take PS 100, PS 131 and PS 222 and these should be taken before going on to upper level classes.

Recommended Courses for Students Interested in Public Service or Governmental Courses

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, 351), local and metropolitan politics (PS 205) and policy analysis (PS 253, 400, 401). For a more complete acquisition of public administration skills, the student should enroll in the Public Management concentration.

Concentration in Public Management

The Department of Political Science, in co-operation with the School of Management, offers a concentration in Public Management. By the meshing of appropriate courses drawn from Political Science, Economics, Management and Mathematics the student will acquire skills essential to administrative responsibilities in government and other public and community agencies. Any major may undertake this program; for students

majoring in political science, the additional requirements to satisfy both the major and the concentration are here listed.

Core Courses in Public Management

PS 100	American Politics
PS 205	Politics of the Local Community
PS 251	Public Administration
PS 351	Public Budgeting
ECN 100, 101	Introduction to Economics I and II
ECN 216	Microeconomic Analysis
MGT 200, 201	Managerial Accounting
MGT 436	Managerial Strategies
MTH 121, 122	Introductory Mathematics for the Social Sciences

Additional Courses Required to Complete Political Science Major

PS 131	Foreign Political Systems
PS 222	Measurement and Methodology
PS 253	Public Policy Analysis

Plus two other political science courses

Students wishing to enroll in this concentration should consult with Professor Tower (Economics) or Professor Marz (Political Science).

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 280 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 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 Department 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 the 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 Communication Concentration (see page 276), the concentration in Social Justice and Corrections (see page 275), the Computer Information Science Concentration (see page 268), and the several area concentrations: East Asia, South Asia, Latin America, Africa, and the Slavic Area (see page 254).

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 page 277 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 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.

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.
Prerequisite: PS 100

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 or 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.

Prerequisite: One course in political science.

PS 241 Law and Politics (4 credits)

A broad survey of the function of law and legal systems in the political order. 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: Sophomore standing.

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 253 Political and Economic Analysis of Public Policy (4 credits)

This course treats normative and empirical analysis of problems in political economy as a technique for studying public policy. Topics covered include current U.S. budgets, agricultural policy, environmental policy, and classical problems of political economy such as Arrow's Impossibility Theorem and Pareto optimality.

Prerequisite: PS 100

PS 271 American Political Thought (4 credits)

The writings of prominent American thinkers and statesmen whose ideas have influenced the development of the American polity will be considered. Selected texts by European thinkers may also be examined with a view to their influence on America. Not offered on any set schedule.

Prerequisite: PS 100

PS 272, 273 Western Political Thought (4 credits each)

Two semester survey of Western political philosophy. Each major philosopher, from Plato to Marx, is placed in his political setting so as to show the interrelationships between 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.
Prerequisite: PS 213
- 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 222
- 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.
Prerequisite: PS 131
- PS 333 African Politics (4 credits)**
Examination of politics of selected African states. 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: PS 131
- 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: PS 131

- 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
- 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 131
- 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: PS 131
- PS 339 Sino-Soviet Relations (4 credits)**
The relations between the People's Republic of China and 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: PS 131
- PS 342 American Legal System I: Principles and Processes (4 credits)**
A study of the various institutions of the American legal system with emphasis on the specific policy-making tools of the judicial process.
Prerequisite: PS 100
- PS 343 American Legal System II: Constitutional Law and Civil Liberties (4 credits)**
A broad survey of American constitutional law. Special emphasis will be placed on 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.
Prerequisite: PS 241 or PS 343
- PS 351 Public Budgeting (4 credits)**
A study of the budgeting process in complex institutions, with special reference to various modern budgetary systems. Stresses the use of control over flow of funds as an instrument in control of policy.
Prerequisite: PS 251
- PS 362 Electoral Processes (4 credits)**
The study of electoral systems, political parties, and the voting behavior of individuals and groups, with special attention to U.S. political experience.
Prerequisite: PS 100, 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.
Prerequisite: PS 100, PS 222

PS 381 Formal 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.

Prerequisite: PS 221

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 Study of Political Systems (4 credits each)

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 Research (2, 4, or 8 credits)

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.

*Note: Students are limited to 8 credits of independent study (PS 290, PS 390, or PS 490) in any one semester.

DEPARTMENT OF PSYCHOLOGY

CHAIRMAN: Boaz Kahana

PROFESSORS: Edward A. Bantel, David C. Beardslee, Harvey Burdick, Donald C. Hildum, Boaz Kahana

ASSOCIATE PROFESSORS: Jean S. Braun, Daniel N. Braunstein, Max Brill, Kenneth H. Coffman, Peter Jammers-Murdoch, Boaz Kahana, David G. Lowy, Ralph Schillace, David W. Shantz, Irving Torgoff

ASSISTANT PROFESSORS: Robert S. Fink, Algea O. Harrison, Allen K. Hess, Leonard Ireland, Gary A. Klein, Virginia E. O'Leary, Dean G. Purcell, F. Edward Rice, Amos Spector, David M. Stonner, Harold Zepelin

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.

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 to 485. Research experience is at the heart of contemporary psychology. Psychology students are also strongly encouraged to volunteer to serve as subjects for some of the ongoing research. In all cases once the data is collected subjects will be provided with an explanation of the rationale behind the research. The experience of serving as a subject should be valuable.

A student majoring in psychology who wishes to earn departmental honors must submit, approximately six weeks before the end of his or her last semester, an application for honors. Application blanks, having the exact deadline date, are available at the Psychology Department office. The application calls for a list of psychology courses taken, together with an indication of 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. Formerly listed as UC054.

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 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 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 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

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 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 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 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 or PSY 146

PSY 273 Psychology of Adolescence and Youth (4 credits)

The adolescent experience and the transition to adulthood, as influenced by physiological change, intellectual growth, and social attitudes, form the subject matter of this course. Among the topics considered are the quest for identity, juvenile delinquency, drug use, the youth culture, relationships between generations, and vocational choice.

Prerequisites: PSY 130 or PSY 146

PSY 274 Psychology of Adulthood and Aging (4 credits)

Psychological change, from young adulthood to death, is the subject matter of this course. Potentials for psychological growth and sources of crisis are considered along with such topics as changes in intellectual processes, attitudes towards aging, retirement, and the needs of the aged.

Prerequisites: PSY 130 or PSY 146

PSY 300 through 309 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 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 mechanisms that control an organism's reaction to the demands of its environment.

Prerequisite: PSY 146

PSY 351 Learning, Memory and Thinking (4 credits)

Approaches to learning, memory, and thinking processes. Includes such topics as conditioning, problem solving, verbal behavior, storage systems, and organization.

Prerequisites: PSY 146 and PSY 252

PSY 352 Sensation and Perception (4 credits)

Approaches to the basic sensory systems and perceptual processes.

Prerequisites: PSY 146 and PSY 252

PSY 354 Comparative Psychology (4 credits)

The literature on sub-human animal behavior with reference to its relevance for the understanding of behavior in general. Looks at a range of species from amoeba and the insects up to the primates. Looks at "basic process" behaviors, abnormal behaviors, social behaviors, etc. 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, and effects.

Prerequisite: PSY 130 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 through 485 Readings and Research Projects (2 or 4 credits)

Individual readings or laboratory research on a topic mutually agreed upon by a student and a member of the psychology department faculty. (The course numbers will be rotated from one term to another.)

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. Maturation 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 through 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

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, Jacqueline Scherer, Amal Vinogradov

INSTRUCTORS: Edward J. Slawski, Richard E. Senter, Richard B. Stamps

ASSOCIATED FACULTY PROFESSOR: Philip Singer

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:

Major in Sociology. SOC 100 and nine other courses (40 credits) in sociology. Of these nine courses, two may be taken in anthropology.

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.)

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.

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 concentration (South or East Asia). For more information on this program see the concentration in area studies, on page 254 of this catalog.

Modified Major in Anthropology with Concentration in Area Studies. AN 101, AN 102, four additional courses (24 credits) in area studies concentration (South or East Asia).

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 271 of this catalog.

Modified Major in Sociology with Concentration in Linguistics.

- a. Six courses (24 credits) in sociology, including SOC 100 and SOC 310. AN 410 — Ethology may be substituted for one course in sociology.
- b. Five courses (20 credits) in linguistics, to be selected in consultation with Linguistics Department adviser.

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.

Major in Sociology with Concentration in Social Justice and Corrections; See page 275 of this catalog.

Major in Sociology with Concentration in Health Behavioral Sciences: See page 270 of this catalog.

Modified major in Sociology-Anthropology with Concentration in Religious Studies.

- a. Six courses (24 credits) in Sociology-Anthropology to include Soc 100 or AN 102.
- b. Five courses (20 credits) in Religious Studies.

AN 271 and SOC 305 may be counted either under a. or b. Students choosing this concentration should take at least one, preferably both of these courses.

NOTE: All prerequisites may be waived by the Department, in accordance with University policy. Students should consult the course instructor.

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.

outside observer. Includes ethnoscience, ethnographic semantics, and systematic ethnography. Involves work with symbolic systems.

Prerequisite: AN 102

AN 320 Systems of Wealth and Power in Anthropological Perspective (4 credits)

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

AN 321 Problems of Social and Economic Change in Developing Societies (4 credits)

The role of anthropology in the implementation of programs of socio-economic development is examined, using examples from non-Western areas. The activities of the United Nations and of national governments in the development field are reviewed.

Prerequisite: AN 102

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

AN 340 Culture and Personality in Indian Society (4 credits)

Selected theories of personality are analyzed in relation to national character and to an understanding of Hindu personality and cultural milieu. The persistence of basic Hindu personality and cultural communities is also examined.

Prerequisite: AN 241 or Allport College Introduction to Behavioral Sciences

AN 352 Survey of African Peoples and Cultures (4 credits)

A general survey of the geography, history, economy, society, religions and political systems of selected indigenous peoples of Africa. Part of the course will cover the events of the period of European contact.

Prerequisite: AN 102

AN 353 Anthropology of North America and the Middle East (4 credits)

This course focuses on the Arab peoples and their neighbors, with emphasis on socio-cultural systems, group relations and social change. The role of Islam as a cultural unifier of these peoples will be discussed.

Prerequisite: AN 102

AN 361 The Peoples of India (4 credits)

A survey of contemporary society and culture on the Indian subcontinent, with special focus on India, Pakistan and Bangladesh. Emphasis is placed on social structure, folk religion and the problems of socio-cultural change.

Prerequisite: AN 102 or AS 066

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.

Prerequisite: AN 101, AN 102

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

AN 372 Indians of South America (4 credits)

A survey of the cultures of the native South Americans. Includes warriors of the jungles, peasants and herders of the mountains, nomads of the plains and forests and subsistence fishermen of the southern coasts. Special cultural institutions include ritual warfare, cannibalism, dual social organization, shamanism, and female initiation.

Prerequisite: AN 102

AN 380 Archaeology 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 archaeological record.

Prerequisite: AN 101

AN 381 Indigenous Peoples of North America (4 credits)

Selected culture areas of North America will be considered. Emphasis will be placed on the adaptation of certain North American Indian societies and Eskimo societies to western contact.

Prerequisite: AN 102

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 adaptation, and population genetics of Hominids through time and space.

Prerequisite: AN 101

AN 383 Methods in Anthropological Archaeology (4 credits)

Students will engage in actual field research, including site location, excavation and artifact analysis and conservation. Instruction in methods under supervision of instructor. May be repeated once for credit.

Prerequisite: AN 101

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

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:

- The relevance of family relationships and child-rearing practices to mental illness and the cultural response to mental illness;
- Socio-cultural variables in physician-patient, indigenous healer-patient relationship;
- the special problems of acculturation and culture change faced by people of emerging countries and America's poor.

Prerequisite: Three 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.

Prerequisite: 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.

Prerequisite: 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.

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

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

SOC 203 Social Statistics (4 credits)

Discusses the role of quantification and statistical reasoning in the interpretation of social data. Considers basic descriptive techniques—tables, percentages, averages, correlations, and measures of dispersion. Introduces basic ideas of statistical inference—sampling, hypothesis testing, and probability statements. Considers basic properties of the binomial and normal distributions, and examines the more common non-parametric statistics used in analyzing survey data. Requires two years of high school mathematics or its equivalent.

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

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

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.

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.

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

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. Identical with REL 305.

Prerequisite: SOC 100.

SOC 307 Methods of Social Research (4 credits)

Examines problems and techniques of measurement in contemporary sociological research. Principle concern is with a survey of the diversity of methods available to the sociologist — unobtrusive measures, participant observation, interviews, questionnaires, surveys and experiments. Examines the relationship between social research and social theory.

Prerequisite: SOC 100.

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.

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.

SOC 320 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.

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 rehabilitation specialist. Other topics studied include the development of inmate subcultures and the dynamics of crisis (e.g. riots) and equilibrium in correctional institutions.

Prerequisite: SOC 320.

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 320.

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.

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.

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.

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. Implications for social action are discussed.

Prerequisite: SOC 100.

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.

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.

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 collegiality 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.

SOC 370 Communities (4 credits)

Community is examined in both empirical and theoretical contexts, with an emphasis upon contemporary experiments, recent political and social interpretations of community development, and changing patterns of communal interaction.

Prerequisite: SOC 100.

SOC 371 Forms and Effects of Mass Communication (4 credits)

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. Identical with SCN 371.

Prerequisite: SOC 100 or sophomore standing or above.

SOC 373 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. Identical with SCN 373.

Prerequisite: SOC 371.

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.

SOC 385 Sociology of the Courts (4 credits)

The courts are analyzed from the sociological perspective. The roles of judges, court officers, jury, and attorneys are described in the context of their professional matrix.

Prerequisite: SOC 100, SOC 320.

SOC 400 Higher Education as a Socializing Institution (4 credits)

Discussion of concepts and research methodologies developed in the study of socializing institutions, with particular reference to higher education as a field of inquiry.

Prerequisite: SOC 100, SOC 200.

SOC 402 Small Groups (4 credits)

Principle concern is the study of face-to-face relations and the informal understandings, codes, and conventions which they generate in modern social systems. The small group is considered as the intersection between personality and the social system. Examines purely social groups as well as problem-solving groups, therapy groups, and sensitivity groups. Considers the dynamics of individuality, leadership, conformity and esprit de corps in a group setting. Identical with SCN 402.

Prerequisite: SOC 100

SOC 430 Internship in Social Justice and Corrections (4 or 8 credits)

Field placement and supervision of students in police, prison, and parole organi-

DEPARTMENT OF SPEECH COMMUNICATION

CHAIRMAN: Adeline Hirschfeld-Medalia

PROFESSORS: Donald C. Hildum; William White (*Director, Journalism Program*)

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*); Robert A. Dearth (*Office, President*); David Robert Kanter (*Meadow Brook Theatre*); Elizabeth Orion (*ADA*); Fred D. Thompson (*ADA*); James R. Tompkins III (*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 jobs.

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.

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 172 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

(N.B. A major in journalism will be proposed after this catalog goes to press. Interested students may get information about it from any member of the department.)

A student may earn a concentration in journalism by successfully completing 20 hours of journalism courses, including Newswriting (JRN 200). 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. All JRN courses are applicable to a journalism concentration. They are listed below, following the SCN courses. SCN 371 and 373 are also applicable.

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 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 Introduction to Linguistic Structures
 - Any two of,
 - LIN 260 Biolinguistics
 - 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 course (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
PSY 130 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 Anthropology with a Concentration in Speech Communication

The Speech Communication concentration for the Sociology Anthropology major requires:

- (a) Six courses (24 credits) in Sociology Anthropology including
SOC 100 or AN 102.
(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) and Journalism (JRN) courses satisfy the General Education Distribution Requirement within the Social Science field group with the exception of SCN 310 crosslisted with PHL 240, Philosophy of Rhetoric, which falls within the Letters group, and those specified SCN courses on Theatre which fall within the Arts group.

NOTE: All prerequisites may be waived by the Department, in accordance with University policy. Students should consult the course instructor.

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 150 Introduction of Visual Media (4 credits)

Study of the relationship of film and television to art, literature, and communication theory. Team taught by Studio Art, English, and Speech Communication. Identical with SA 150, Eng. 150.

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 172 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 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. Identical with HI 363.

SCN 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. Identical with LIN 207.

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 273 Introduction to Cinematography (4 credits)

Exploration of the essential elements of film as a medium, its capabilities and limitations. Practical application in studio and/or field work.
Prerequisite: SCN 172

SCN 274 Introduction to Television Production (4 credits)

Exploration of the essential elements of television as a medium, its capabilities and limitations. Practical application in studio and/or field work.
Prerequisite: SCN 172

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. Theory together with laboratory experiences, as appropriate, in such one-to-one relationships as interviewing, decision-making, tutoring.

SCN 310 Philosophy of Rhetoric (4 credits)

The problem of "objectivity," philosophical justifications for a distinction between persuasion and proof, between propaganda and information, etc., and the consequences of denying such a distinction. Readings will include Plato's *Gorgias*, Aristotle's *Rhetoric*, and recent books and articles on reasoning and communication. Identical with PHL 240.

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 320 Speech Communication for the Elementary Teacher (4 credits)

Linguistic development of the child (emotional, physical and cognitive) as it relates to symbol-using behaviors, and methodology relating to specific communicative objectives.

SCN 321 Speech Communication for the Secondary Teacher (4 credits)

Principles and practices designed to improve the speech habits of the teacher, to supply special skills for classroom and professional use, and to assist prospective teachers in acquiring basic, usable techniques for speech improvement in the classroom.

SCN 350 Readers, Chamber, and Media Theatre (4 credits)

Group forms of oral interpretation. Intensifying meaning through added movement, media, and music.

Prerequisites: SCN 250 or SCN 161

SCN 361 Mime (4 credits)

An introduction to the art of gesture and movement. Some classical and traditional forms will be explored with most of the emphasis pointing to the active involvement with a mime's space. The final project will be a mime presentation. Identical with NC 211.

SCN 363-364-365 Practicum in Rehearsal and Performance (4 credits each)

An intensive production practicum where the student's major workload is concerned with the actual development of a student theatre production. Each student will keep a running log concentrating on character development, design conception and execution, or prompt script. These materials will then be compiled and placed in the archives for future reference. This course may be repeated for the maximum total of 12 credits.

SCN 366 Costuming and Makeup (4 credits)

Theory and Practicum.

Prerequisite: SCN 261.

SCN 371 Forms and Effects of Mass Communication (4 credits)

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. Identical with SOC 371.

Prerequisite: SOC 100 or sophomore standing and above.

SCN 373 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. Identical with SOC 373.

Prerequisites: SCN 371 or permission of instructor.

SCN 402 Small Groups (4 credits)

Principle concern is the study of face-to-face relations and the informal understandings, codes, and conventions which they generate in modern social systems. The small group is considered as the intersection between personality and the social system. Examines purely social groups as well as problem-solving groups, therapy groups, and sensitivity groups. Considers the dynamics of individuality, leadership, conformity and esprit de corps in a group setting. Identical with SOC 402.

Prerequisite: SOC 100

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 Extemporaction and Theatre Games (4 credits)

Group interaction experiences such as improvisation, simulation, roleplaying, sociodrama, creative dramatics, story and readers theatre, and educational games. Includes application of these techniques for group leadership, teaching, and theatre performance. Identical with ED 590.

SCN 430 Speech Science (4 credits)

The physical aspects of speech symbols, their production and reception. Identical with LIN 410.

SCN 460 Theatre Production for School and Community (4 credits)

Theatre production coordination, including such aspects as choice of scripts, casting, direction, staging, lighting, costuming, box office, and publicity.

SCN 461 Advanced Stage Design (4 credits)

The concept of stage design, rendering, and drafting.

Prerequisites: SCN 261, 262.

SCN 462 Direction Practicum for the Stage, Film, Television (4 credits)

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 464 Costume Design (4 credits)

Introduction to costume history; drafting, cutting and construction, as well as the technique of rendering.

Prerequisite: SCN 366.

SCN 471 Workshop in Contemporary Communications (4 credits)

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 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.

SCN 491 Internship (4, 8, or 12 credits)

Practical experience working with professionals in a variety of performing arts and mass communications settings.

Prerequisite: Permission of supervising faculty.

JRN 210 Investigative Reporting (2 credits)

Gathering information through wide reading and interviewing, and writing objective, indepth news reports and background on social, political, and economic subjects of current interest and concern.

Prerequisite: JRN 200.

JRN 211 Public Affairs Reporting (2 credits)

News coverage of federal, state and local criminal and civil court trials, legislative bodies, city and county and other government agencies, writing labor stories and stock market news.

Prerequisite: JRN 200 and PS 100.

JRN 212 Feature Writing (2 credits)

Practice in writing newspaper and magazine non-fiction features, such as human interest stories, biographical and personality sketches, how-to-do-it articles, and other forms; a study of the purposes, styles, various types and techniques of the feature story.

Prerequisite: JRN 200.

JRN 220 Editorial Writing (2 credits)

Preparing and writing newspaper opinion and commentary usually found on the editorial page; a study of the forms and techniques of editorials and the editorial page.

Prerequisite: JRN 200.

JRN 221 Reviewing: Books, Theatre, Movies (2 credits)

Writing newspaper reviews of literature, the stage and the screen from recent publications, live productions, and films.

Prerequisite: JRN 200; and one of the following: ENG 100, 111, 201, 207, 209, 224, 225.

JRN 230 Radio-Television News (2 credits)

Fundamentals and techniques of preparing news for broadcasting, especially the different demands of electronic journalism from those of the print media.

Prerequisite: JRN 200.

JRN 231 Public Relations and the Media (2 credits)

A study of the function of agency, industrial, business, and institutional relations with the public through newspapers, radio, television and other media, especially concerning press information; preparation of copy and some attention to employee publications.

Prerequisite: JRN 200.

JRN 240 Journalism Laboratory (2 credits)

Work on campus publications under the supervision of an instructor; the course may be repeated once.

Prerequisite: JRN 200.

JRN 300 Newspaper Editing (4 credits)

Principles and practice of the newspaper copydesk: copy reading, headline writing, makeup and typography; preparing copy for the printer; some attention to the new and developing devices in the print shop, such as those involving the computer.

Prerequisite: JRN 200.

JRN 303 Law of the Press (4 credits)

State and federal laws dealing with libel, contempt of court, right of privacy, copyright, and other legal matters affecting newspapers, radio and television, and other media.

Prerequisite: JRN 200.

JRN 330 News Photography (2 credits)

Fundamentals of black and white photographic production; practice in taking still pictures of people and events for use in newspapers and news magazines; dark room laboratory work in developing photos.

JRN 331 Media Management (2 credits)

Business, corporation and legal problems in the front office operation of weekly and daily newspapers, industrial and employee magazines, and radio and television stations.

Prerequisite: JRN 200.

JRN 400 Special Topics in Journalism (4 credits)

Various specialties offered to students with the subject changing from semester to semester, with some opportunity for independent study.

Prerequisite: JRN 200.

JRN 404 Journalism Internship (4, 8, or 12 credits)

A full or part-time internship on a weekly or daily newspaper, radio or television station, or with a public relations office for a semester. Required of all journalism majors and open only to them, usually taken in the student's senior year.

Prerequisites: JRN 200, 300, and two other journalism courses.

INTERDEPARTMENTAL PROGRAMS AND COURSES

THE AREA STUDIES PROGRAMS

CHAIRMAN: Robert C. Howes (*History—Russia*)

AREA STUDIES COMMITTEE: Carlo Coppola (*Modern Languages—South Asia*); Barbara A. Gallow (*Learning Skills—Afro-American Studies*); James D. Graham (*History—Africa*); Kathryn M. McArdle (*Modern Languages—Latin America*); James R. Ozinga (*Political Science—Russia*); Amitendranath Tagore (*Modern Languages*); S. Bernard Thomas (*History—China*)

The area studies programs are dedicated to the understanding of living civilizations whose various aspects — art, government, history, language, literature, music, social organization — are studied in the traditional departments of the university. A concentration in one of the areas offered might be considered by any student who, from intellectual curiosity, seeks an integrated view of a civilization as well as by a student who looks forward to a career in government service, journalism, teaching, residence or work abroad, or to graduate study with an area emphasis. Oakland University offers area programs in African studies, Afro-American studies, East Asian studies (China and Japan), Latin American studies, Slavic studies (Russia and Eastern Europe), and South Asian studies (India, Pakistan, Bangladesh).

I. THE AFRICAN STUDIES PROGRAM

FACULTY: James D. Graham (*History*), Coordinator; Cordell W. Black (*Learning Skills*); Richard M. Brace (*History*); Lawrence T. Farley (*Political Science*); William C. Forbes (*Biological Sciences*); Karl D. Gregory (*Economics and Management*); Marvin D. Holladay (*Music*); James W. Hughes (*Education*); Mary Karasch (*History*); Vincent B. Khapoya (*Political Science*); Cecelia F. Klein (*Art History*); Harold G. Lawrence (*History*); Benon J. Turyahikayo-Rugyema (*History*)

The Concentration in African Studies

The concentration, which consists of ten courses (40 credits), is offered in conjunction with a full major in any department. Course requirements are AS 064, two years (16-20 credits) of

Swahili or Arabic,* AS 384, and four other courses from the following list, including one course from each of the following groups: (1) AN 352, HST 286, HST 287, (2) AH 200, MUS 251, FRH 287, (3) PS 332, PS 333.

*Until Oakland offers Swahili or Arabic on a regular basis, this requirement may be met by completion of 20 hours of French, Portuguese, or other courses approved by the African studies staff.

COURSE OFFERINGS

(For detailed course descriptions, see entries under individual departments.)

- | | |
|---------------------|--|
| AH 200 | African Art |
| AN 352 | Survey of African Peoples and Cultures |
| BIO 309 | Parasitology |
| ECN 327 | African Economic Development |
| ED 581 | Teaching about Africa in the Public Schools |
| FRH 287 | Black French Literature in Translation |
| HST 286, 287 | Survey of African History |
| HST 365 | Response to European Imperialism |
| HST 386 | African Socialism |
| HST 387 | Northwestern Africa (the Maghrib) since 1830 |
| HST 388 | Twentieth Century Africa |
| LIN 301 | Introduction to Linguistic Structures |
| LIN 428 | The Teaching of English as a Foreign Language |
| MUS 251 | African through Afro-Caribbean Music |
| PS 332 | Politics of the Middle East and North Africa |
| PS 333 | African Politics |

- AS 064** Introduction of Africa
- AS 300** Special Topics in Area Studies
- AS 384** Seminar in African Studies
- AS 390** Directed Readings in Area Studies
- AS 490** Directed Research in Area Studies
(See p. ??? for descriptions of AS 064, 300, 384, 390, 490.)

II. THE AFRO-AMERICAN STUDIES PROGRAM

FACULTY: Barbara A. Gallow (*Learning Skills*), Coordinator; James H. Bullock (*Learning Skills*); Robert L. Donald (*English*); DeWitt S. Dykes (*History*); James D. Graham (*History*); Karl D. Gregory (*Economics and Management*); Marvin D. Holladay (*Music*); Mary Karasch (*History*); Vincent A. Khapoya (*Political Science*); Cecelia F. Klein (*Art History*); Gadis Nowell (*Economics and Management*); Carl R. Osthaus (*History*); Colin A. Palmer (*History*)

The Concentration in Afro-American Studies

The concentration, which consists of seven courses (28 credits), is offered in conjunction with a full major in any department. Required courses are AS 064, HST 291, HST 292, AS 380, and one course from each of the following groups: (1) AH 208, ENG 342, MUS 346, (2) PS 163, ECN 221, SOC 231, (3) AS 300, AS 390, HST 319, HST 323, HST 366,

COURSE OFFERINGS

(For detailed course descriptions, see entries under individual departments.)

- AH 208** Afro-American Art
- AN 353** Anthropology of North America and the Middle East
- ECN 221** Economics of the Afro-American Experience
- ENG 342** Black American Writers
- HST 291, 292** History of the Afro-American People
- HST 319** History of the American South
- HST 323** Advanced Study in Afro-American History

HST 366 Slavery and Race Relations in the New World

MUS 346 The Music of Black Americans

PS 163 Black Politics

SOC 231 Racial and Cultural Relations

AS 300 Special Topics in Area Studies
(Field Studies in the Afro-American Experience)

AS 380 Seminar in Afro-American Studies

AS 390 Directed Readings in Area Studies

AS 490 Directed Research in Area Studies
(See p. ??? for descriptions of AS 064, 300, 380, 390, and 490.)

III THE EAST ASIAN STUDIES PROGRAM

FACULTY: S. Bernard Thomas (*History*), Coordinator;
Sheldon L. Appleton (*Political Science*); Ralph F. Glenn (*Art History*);
Robert C. Howe (*History*); Janet Krompart (*East Asian Librarian*);
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*);
Robert Wargo (*Philosophy*)

Program Options and Requirements

Admission to the following programs in East Asian studies requires successful completion of AS 062 or AS 063 and two semesters (10 credits) of Chinese. Interested students should consult with the coordinator of East Asian studies 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 following 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, art and art history, 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 following list, including AS 490.

COURSE OFFERINGS

(For detailed course descriptions, see entries under individual departments.)

Chinese Language and Literature courses (See Modern Languages and Literatures)

- | | |
|----------------|---|
| AH 104 | Introduction to Asian Art |
| AH 300 | Chinese Art |
| AH 301 | Japanese Art |
| AH 304 | Japanese Painting |
| 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 |
| HST 376 | History of Chinese Communism, 1921-present |
| PHL 250 | Philosophies and Religions of Asia |
| PHL 351 | Chinese Philosophy |
| PS 338 | Modern Chinese Politics |
| PS 339 | Sino-Soviet Relations |

- AS 062 Introduction to China
- AS 063 Introduction to Japan
- 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. ??? for descriptions of AS 062, 063, 300, 381, 390, and 490.)

IV. 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*); Brian W. Coyer (*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*).

The Concentration in South Asian Studies

The concentration is offered in combination with a modified departmental major in anthropology, art and art history, 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 following list, including AS 490.

Formal admission to the concentration requires completion of AS 066 and two semesters (10 credits) of an Indian language. Interested students should consult with the coordinator of South Asian studies as early in their college careers as possible

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 104 Introduction to Asian Art
- AN 361 The Peoples of India
- 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 066 Introduction to India
- 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. ??? for descriptions of AS 066, 300, 382, 390, and 490.)

V. THE SLAVIC STUDIES PROGRAM

FACULTY: James R. Ozinga (*Political Science*), Coordinator;
Lee M. Corrigan (*Russian Language and Literature*); Jerry M. Freeman
(*Russian Language and Literature*); Alice Gorlin (*Economics*);
Robert C. Howes (*History*); Dmytro Ijewliw (*Russian Language and
Literature*); Helen Kovach (*Russian Language and Literature*);
Lawrence D. Orton (*History*)

PROGRAM OPTIONS AND REQUIREMENTS

Admission to the following programs in Slavic studies requires completion of AS 070 and two semesters (8-10 credits) of Russian. 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 of this major is eight courses (32-36 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 following 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 following list, including HST 251 or 252, PS 337, and AS 490.

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 070 **Introduction to the Slavic World**
- 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. for descriptions of AS 070, 300, 383, 386, 390, and 490.)

VI. THE LATIN AMERICAN STUDIES PROGRAM

FACULTY: Karthryn McArdle (*Spanish*), Coordinator; William C. Bryant (*Spanish*); James W. Dow (*Anthropology*); Edward J. Heubel (*Political Science*); Mary C. Karasch (*History*); Cecelia F. Klein (*Art History*); Richard Mazzara (*French, Portuguese*); Mariano Pallarés (*Spanish, Portuguese*); Colin A. Palmer (*History*)

PROGRAM OPTIONS AND REQUIREMENTS

Admission to the following programs in Latin American studies requires completion of AS 068 and two semesters (8-10 credits) of Spanish, Portuguese or French. Interested students should consult with the coordinator of Latin American studies as early in their college careers as possible.

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 area courses (20 credits) selected from the following 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, art and art history, 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 following list, including AS 490.

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 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**

- SPN 286 Spanish and Spanish-American Literature in Translation**

- SPN 462 Spanish American Literature I**

- SPN 463 Spanish American Literature II**

- AS 068 Introduction to Latin America**

- 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**

VII. INTERDEPARTMENTAL COURSES OFFERED TOWARD THE AREA CONCENTRATIONS

AS 062 Introduction to China (4 credits)
A study of the traditional civilization and modern development of China. Topics include history, philosophy and religion, literature and the arts, government, and social organization.

AS 063 Introduction to Japan (4 credits)
A study of the traditional civilization and modern development of Japan. Topics include history, philosophy and religion, literature and the arts, government, and social organization.

AS 064 Introduction to Africa (4 credits)
An introduction to the geography and ecology of Africa and the history and cultures of African peoples. Attention will be directed also to social organization; economic, political, and religious systems; and problems of social change.

AS 066 Introduction to India (4 credits)
A study of the traditional civilization and modern development of the Indian subcontinent. Topics include philosophy and religion, literature and the arts, history, political structure, and social organization.

AS 068 Introduction to Latin America (4 credits)
A study of the traditional and modern forces in Latin America, the cultures of Indian, European, and African peoples, and a survey of contemporary social and political problems of the area.

AS 070 Introduction to the Slavic World (4 credits)
A study of the traditional civilization and modern development of the Slavic peoples with special emphasis on the Russians. Topics include ethnography, history, literature and the arts, political organization, and the role of the Soviet bloc in the modern world.

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 (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 380 Seminar in Afro-American Studies (4 credits)
Offered to supplement departmental area courses. An intensive study of selected topics dealing with the Afro-American experience. May be taken more than once. Prerequisite: Permission of the instructor.

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 in Area Studies (2, 4, 6, or 8 credits)

Readings from diverse disciplines with focus on a student's area of specialization. Conducted on a tutorial basis by an instructor chosen by the student. Requires approval of the chairman of the Committee on Area Studies prior to registration.

Prerequisites: Permission of the Department and the instructor.

AS 490 Directed Research in Area Studies (2, 4, 6, or 8 credits)

Research relating to the student's area of specialization including completion of a senior essay or research paper. May be offered as a seminar or as a tutorial. Supervised by an instructor from the Area Studies staff. Approval of the instructor and of the chairman of the Committee on Area Studies are required prior to registration.

Prerequisites: Senior standing, admission to an area concentration, and permission of the Department and the instructor.

COMMITTEE ON HEALTH SCIENCES PROFESSIONS: Moon J. Pak, CHAIRMAN

Boaz Kahana (*Psychology*); Abraham R. Liboff (*Physics-Medical Physics*); Moon J. Pak (*Biological Sciences*); Nalin J. Unakar (*Biological Sciences-Medical Technology*); Paul Tomboulian (*Chemistry-Environmental Health*).

Oakland University offers three interdepartmental major programs leading to a B.S. degree. These are: Environmental Health, 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, Physician's Assistant, Physical Therapy and others. A 4-year baccalaureate Nursing program will begin its first class in fall, 1974. (see p. 402). Some of these majors differ from other undergraduate major programs in the College of Arts and Sciences in that most graduates in Health Sciences have clear and definite career orientation. Hence, some aspects of these programs, such as total credit requirement, general education requirement and off-campus practicum experience are at variance with the general practices in the College of Arts and Sciences.

Graduates of some health science programs are required to take certification or licensing examinations. In such programs a judicious effort has been made to 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 PROGRAM

PROGRAM COORDINATOR: Paul Tomboulian (*Chemistry*)

These programs prepare students as environmental specialists for a wide variety of professional opportunities existing mainly in government and industry. Graduates of the programs should be able to identify and offer technical solutions of the broad range of environmental problems which impact on human health and well-being. These include such areas as occupational health, air resources, water resources, land resources, environmental planning.

The multi-dimensional nature of these disciplines requires students with a broad scientific inclination and a bias toward public service. A total of 128 credits is required for the bachelor's degree, of which 24 credits are in the general education category. The program is divided into three parts: introductory, intermediate, advanced.

The introductory core program courses total 35 credits:

BIO 111, 112, 113, 114
CHM 104, 105, 107, 203, 204
MTH 123-124 or 134-154

The intermediate components of the core programs would usually include approximately 30 credits, often including:

BIO 221, 222, 301, 331
CHM 217, 351
PHY 101, 102, 158

The advanced courses would be selected for the particular option or specialization desired.

Specialization in Occupational Health and Safety

Building upon the core program, this specialization provides a combination of subject matter and experiences designed to prepare students for professional careers relating human health and safety factors to working conditions. The recent increased emphasis on improving occupational health and safety has generated many opportunities in industry, government, public health, and environmental control agencies. Students learn first to recognize and evaluate environmental hazards and identify potential problems. This is followed by training in sampling, monitoring, and controlling harmful and dangerous agents. Finally students learn corrective procedures and prescriptive methods for control or elimination of undesirable occupational health and safety conditions and practices. Emphasis is on air and water pollutants, noise, radiation hazards, and disease vectors. Techniques of assessing actual and potential risks of exposure to environmental hazards are evaluated, along with philosophies, methodologies, and applications of tolerances, thresholds, and limits.

Although the details of the curricula and courses are still being developed, the program will be based upon the core courses, emphasizing specialization in the junior and senior years. Anticipated upper-level offerings would include the areas of public health, epidemiology, toxicology, and occupational health internship.

Specialization in Environmental and Resource Management

Adding to the core program, students in this option emphasize the management of resources as they affect human health and well-being. Individualized academic curricula are possible providing a maximum of flexibility to match interests, talents, and subject specialties. Opportunities for study in air pollution, water pollution, demography, land resource management, control applications, and planning functions are anticipated. Professional careers are available for graduates in planning agencies, industry, and government. Alternatively, program options offer ideal training for a variety of graduate school opportunities in environmental studies, planning, natural resource management, and environmental and public health.

Curricular details are in the developmental stages, but ad-

vanced offerings might include courses in environmental chemistry, air and water chemistry, radiation physics, ecology, urban studies, environmental engineering, political science, earth sciences.

Interested students should consult the program coordinator for advising or for specific information on course and program

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 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 instrumentation. 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: Nalin J. Unakar (*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.

Currently, the following Hospital Schools of Medical Technology are affiliated with Oakland University:

1. Crittenton Hospital, Rochester, Michigan
2. Pontiac General Hospital, Pontiac, Michigan
3. Providence Hospital, Southfield, Michigan
4. St. Joseph Mercy Hospital, Pontiac, Michigan
5. William Beaumont Hospital, Royal Oak, Michigan

A total of 128 credits is required for the B.S. in Medical Technology, of which 24 credits are in the general education category and 28 credits are earned in the fourth-year hospital internship. 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)
 - 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, 223, 224, 407, 408, Medical Microbiology, Immunology
 - CHM 104, 105, 107, 203, 204, 206, 207
 - MTH 123 or 134
 - PHY 101, 102, 158

CONCENTRATION IN ARCHAEOLOGY

CHAIRMAN: Gottfried Brieger (*Chemistry*)

This concentration is designed to prepare students for graduate study in archaeology as well as for students interested in an interdisciplinary approach to man's cultural development viewed from a historical, aesthetic, and scientific perspective.

The concentration consists essentially of three major parts: a basic core, presenting fundamental concepts in anthropology, art, history, and aesthetics; a field distribution, providing an introduction to New and Old World archaeology; and a practicum, including a course in archaeological methods as well as field term. A minimum of 28 credits are required for this program.

REQUIREMENTS:

1. Core (all courses required)
 - AN 101 Evolution of Man and Culture
 - CLS 100 Introduction to Classical Civilization
 - AH 314 Etruscan and Roman Art
2. Distribution (one course from each group)
 - A. Old World Archaeology:
 - AH 312 Near-Eastern and Greek Art
 - CLS 130, 131 The Dynamics of Ancient Civilization
 - CLS 150 Introduction to Greek and Roman Archaeology
 - B. New World Archaeology:
 - AH 204 Pre-Columbian Art
 - AH 206 North-American Indian Art
 - AN 370 Archaeology of Mesoamerica
 - AN 371 Cultures of Mesoamerica
 - AN 380 Archaeology of North America
 - HST 306 Colonial and Revolutionary America
 - HST 367 Pre-Columbian and Colonial Mexico
3. Methods and Field Term (one course in each area)
 - AH 315 Methods in Art Historical Archaeology
 - AH 316 Tuscan Archaeology
 - AH 317 Museology and Conservation
 - AN 383 Methods in Anthropological Archaeology

In addition to the courses listed above, there are a number of other courses recommended for those interested in further expanding their background. These include: AH 320, 322, 326; AN 352, 372, 381; HST 261, 262, 325, 328, 329.

Please see Department entries for full descriptions of these courses.

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.

For further details on requirements and courses, see p. 375.

CONCENTRATION IN ENVIRONMENTAL STUDIES

COORDINATOR: Paul Tomboulion (*Chemistry*)

The Environmental Studies program is intended to introduce students to modes of thought and action relative to environmental issues. Students learn to identify and evaluate alternative solutions to environmental problems. Short and long range implication of human activities are analyzed, as they affect resources and public policy.

Four broad areas of inquiry are included in these studies:

- (1) application of science and technology to environmental quality and resources;
- (2) impact of human settlements on ecosystems and human welfare;
- (3) implications of human life support activities, including food, transportation and planning; and
- (4) Use, reuse, and depletion of physical and biological resources.

Through a multidisciplinary approach, problem-solving methods, decision-making programs, and benefit-risk analyses can best be understood. Thus the program does not offer a major,

but concentrations are available in conjunction with existing majors in cooperating departments. Programs of individualized independent study and field work are a frequent feature of these concentrations. Interested students are encouraged to consult with their major department, or the program coordinator.

Courses of related interest in many departments are often suitable for inclusion in an environment studies concentration. These include, but are not limited to: AN 102, AN 265, AH 362, BIO 237, BIO 301, BIO 343, ECN 225, ECN 308, ECN 309, PSY 205, PSY 230, SOC 201, SOC 370, EGR 415, HST 316, 317, HST 350, 351, PHL 219, PHY 106-107.

ENV 151 Introduction to Environmental Studies (4 credits)

A general introduction to selected social and political aspects of typical environmental issues. Topics chosen from current literature and taught predominantly by social science faculty. (This course may be used to satisfy part of the Distribution Requirement in social science.)

ENV 181 Introduction to Environmental Studies (4 credits)

A general introduction to selected scientific and technical aspects of typical environmental issues. Topics chosen from current literature and taught predominantly by science faculty. (This course may be used to satisfy part of the Distribution Requirement in natural science.)

Prerequisite: Sophomore standing.

ENV 182 Introductory Environmental Topics (4 credits)

A course complementing ENV 181 emphasizing selected areas of resource use and management. Content varies according to semester.

Prerequisite: Sophomore standing.

ENV 212 Energy and the Environment (4 credits)

Basic facts of energy: its sources, forms, the roles it plays, and its ultimate sinks. Emphasis is placed on learning the laws that limit energy utilization, the energy flow patterns that affect human welfare, the effects of energy use on the environment, and the facts and alternatives associated with current energy-related problems.

Prerequisite: ENV 181. Two years of high-school mathematics desirable.

ENV 221 Subsistence and Technology (4 credits)

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. Identical with AN 221.

Prerequisite: AN 102, or permission of the instructor.

ENV 271 Environmental Chemistry (4 credits)

Application of chemical principles to the study of selected current problems of environmental concern. Will include the basis of eutrophication, combustion chemistry, pesticide activity, and chemical-ecological relationships. Identical with CHM 271.

Prerequisites: CHM 203 or 234.

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. (Graded S/N).

ENV 313 Problems of Energy and Environment (5 credits)

Methods of determination of environmental costs of current energy consumption in agriculture, electric power generation, nuclear waste disposal, transportation, and industry. Advantages and disadvantages of alternative energy sources, consumption patterns, and conservation efforts are examined.

Prerequisite: CHM 105 or 115 or 125 or PHY 152.

ENV 362 Impact of Urbanization (4 credits)

A scientifically-based environmental impact analysis of urbanization. Includes a consideration of the climate, hydrology, soils, physiography, and ecological relationships in suburban, urban, and metropolitan areas.

Prerequisite: junior standing. Prior experience in metropolitan studies desirable.

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. 389).

CONCENTRATION IN JOURNALISM

CHAIRMAN: William White

This concentration provides courses helpful to students interested in careers in journalism. Please see the entries under the Department of Speech Communication (p. 241).

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 Mid-rasha 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 profession 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. 141. Interested students are invited to discuss their plans with the chairman of the concentration.

CONCENTRATION IN PREPROFESSIONAL STUDIES IN MEDICINE AND DENTISTRY

CHAIRMAN: Moon J. Pak (*Biological Sciences*); Gottfried Brieger (*Chemistry*); Allen K. Hess (*Psychology*); John R. Reddan (*Biological Sciences*); Robert L. Stern (*Chemistry*); Nalin J. Unakar (*Biological Sciences*); Barry Winkler (*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 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 counseling and assistance in planning their academic programs.

CONCENTRATION IN PUBLIC AND SOCIETAL SYSTEMS

CONCENTRATION COMMITTEE: Robert H. Edgerton (*Engineering*),
Chairman

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.

For further details on requirements and courses, see pp. 383.

CONCENTRATION IN RELIGIOUS STUDIES

CHAIRMAN: Richard J. Burke (*Philosophy*)

The Religious Studies Program offers a series of courses on reli-

gion, 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). Most of the courses are identical with courses in various departments (PHL 225, SOC 305, etc.), and have whatever prerequisites are indicated in the departmental listing. Courses with REL 200 numbers only require sophomore standing (28 or more credits); courses with REL 300 numbers only require in addition 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 may be taken jointly with a modified major (24 credits) in either Philosophy or Sociology-Anthropology, or with a full major in any department of the College of Arts and Sciences. Combinations which make good sense, besides those two, would be with History, English, Psychology, Classics, or Modern Languages and Literatures. 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 (4 credits)

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 202 The Jewish Tradition (4 credits)

Selected ideas and institutions in the development of Judaism from its pre-exilic roots to the present. Offered every two years.

REL 203 The Christian Tradition (4 credits)

Study of the most important Christian ideas and institutions from Jesus to the present. Offered every two years.

REL 204 The Islamic Tradition (4 credits)

Selected ideas and institutions in the history of Islam. Offered every two years.

REL 211 Old Testament Literature (4 credits)

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 (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. 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. Identical with HST 307.

Prerequisite: two courses in American history, or permission of instructor. Systematic Studies:

REL 220 Topics in the Systematic Study of Religion (4 credits)

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 (4 credits)

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 (4 credits)

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 (4 credits)

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 (4 credits)

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 year.

REL 291 Religion and Contemporary Moral Problems (4 credits)

Investigation of the theological and ethical reasons for the emergency of a new attitude toward moral questions. Protestant, Catholic, Jewish and secular viewpoints on some of these: love, sex, civil disobedience, criminal punishment, violence, war, suicide, death. Offered every two years.

REL 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. Identical with SOC 305. Offered every year.

Prerequisite: SOC 100 or permission of the instructor.

RE. 390 Directed Readings in the Study of Religion (4 credits)

Individual study of a topic not covered by regular courses, with the guidance of a faculty tutor. May be repeated for credit.

Prerequisite: One prior course in Religious Studies at Oakland and consent of the Concentration Chairman.

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

CONCENTRATION IN SOCIAL JUSTICE AND CORRECTIONS

CHAIRMAN: Jesse R. Pitts (*Sociology and 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 320 Sociology of Crime and Punishment

SOC 325 Corrective and Rehabilitative institutions

SOC 327 **Police and Society**

SOC 435 **Juvenile Delinquency and Its Social Control**

PS 241 **Law and Politics**

PS 343 **American Legal System II: 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 273 **Psychology of Adolescence and Youth**

PS 342 **American Legal System I: Principles and Processes**

PHL 221 **Theories of Justice, Power, and Freedom**

SOC 330 **Sociology of Youth**

SOC 385 **Sociology of the Courts**

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. 242).

CONCENTRATION IN THEATER 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. 242).

The Social Studies Program

The Social Studies Program prepares students to teach in junior and senior high schools. Students of the program graduate with a Bachelor of Arts degree with teacher certification.

The Social Studies Major

The program provides for a required core of social science experiences with concentrated study in three social science content areas. A total of forty (40) credits is required for a social studies major.

Core Program in the Social Sciences:

SS100 Introduction to Social Sciences

SS 200 Inquiry Skills for the Social Scientist

Sixteen (16) credits in political science, evenly distributed between "American Politics" and "Non-American/Comparative Politics."

Sixteen (16) credits in history, evenly distributed between "American History" and "World History."

Students in the Social Studies Program must choose from among a number of associated minors, i.e. sociology, psychology, history, political science.² Should a student elect to minor in either political science or history, sixteen (16) credits in another social science or from an interdisciplinary social science group must be substituted in the major.

In addition to the major sequence of courses, a core of thirty-six (36) credits called a "Professional Component" is required. This sequence of courses has two major thrusts: 1) to move students through a developmental sequence of experiences that lead from one-to-one tutoring to full-time classroom teaching, and 2) to place students preparing to teach social studies into early and consistent contact with students and other environmental factors in junior and senior high school classrooms.

¹This major is awaiting Michigan Department of Education approval. For information on its current status, please contact the Director of the Social Studies Program, 413 Varner Hall.

²A series of disciplinary minors have been developed in cooperation with the departments of Sociology/Anthropology, Political Science and Psychology. At the present time, these minors await Michigan Department of Education approval.

Core Experiences for the "Professional Component"

- ED 100 Tutoring Experiences in Social Studies
- ED 200 Micro-teaching in Social Studies
- ED 244 Social and Philosophical Issues in Education
- ED 245 Psychological and Field Studies in Education
- ED 370 Field Problems in Social Science
- ED 428 Teaching in the Major Field: Social Studies
- ED 454 Skill Development Laboratories for Teaching Social Studies
- ED 455 Internship

The Social Studies Minor

To get a minor in Social Studies one must complete the introductory course SS 100 Introduction to Social Sciences and twenty (20) additional credits from among courses in the social sciences (anthropology, economics, history, political science, psychology, social studies, and sociology). A total of twenty-four (24) credits is required for this minor. At least three courses must be taken at the 200 level or higher.

Recommended:

No less than eight (8) credits should be concentrated in each of two (2) of the social sciences identified above.

Example:

Political Science..... eight (8) credits

Sociology eight (8) credits

Remaining credits may be taken from among the social science areas other than those in which the student has chosen to concentrate. (Area studies, geography, and environmental studies courses accepted for social science distribution requirements may also constitute these 'remaining credits'.)

Course Descriptions***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 may examine key concepts, methods, and scholarly literature in these fields and apply their work to selected current issues through interdisciplinary models.

This course is required of all social studies majors and minors. SS 100 may be used to satisfy the general education requirement in Social Science.

SS 200: Inquiry Skills for the Social Scientist (4 credits)

This course continues the interdisciplinary focus begun in SS 100.

Current issues form its content. Students are expected to apply interdisciplinary investigative models to these issues in an effort to effect problem solution. Students will be provided a short-term 'field' assignment. This course is required of all social studies majors.

Prerequisite: SS 100.

ED 100: Tutoring Experience in Social Studies (2 credits)

Students will be placed in schools to work with teachers and secondary students. It is expected that forty to fifty hours will be spent with cooperating teachers, and that schedules will be arranged by the student, cooperating teacher, and university coordinator for regular time commitments. Experiences may range from observation of teachers in classroom settings and work with classroom management procedures, to tutoring and work as teacher aids. Occasional workshops may be necessary to acquire appropriate skills. It is hoped that consideration can be given to individual priorities for ED 100 enrollees. Transportation is to be arranged by the student.

Prerequisite: NONE (To be taken in Freshman year, if at all possible, as an entry into the secondary Social Studies Program.)

*For course descriptions not presented in this section, please see the description provided by the appropriate individual departments.

ED 200 Micro-Teaching in Social Studies (2 credits)

Students will be placed in schools to work with teachers and secondary students. It is expected that forty to fifty hours will be committed to a cooperating teacher to work as tutors, teacher aids, leaders of small and large group discussions and simulation games, aids in micro-teaching (mini-courses), and some regular classroom instruction. It is hoped consideration can be given to individual priorities. Transportation is to be arranged by the student.

Prerequisite: ED 100 (To be taken in Sophomore year, if possible.)

Transfer students and others wishing to carry ED 100 and ED 200 together must obtain instructor's permission.

ED 370 Field Problems in Social Science (4 credits)

This course is designed to assist prospective social studies teachers in the identification and solution of instructional problems. Major emphasis is placed on "use" of student background to solve problems peculiar to students and teachers of social studies. Students in the course operate through a written contract agreed upon by themselves, an appropriate public, private and/or parochial school official, and the appropriate representative of the Social Studies Program.

Prerequisite: ED 200.

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 245, ED 370.

This is a full-semester course for students of the Social Studies Program. It must be taken one semester before student teaching.

ED 454 Skill Development Laboratories for Teaching Social Studies (4 credits)

This course is required of all social studies interns. It is designed as a series of workshops, seminars, and individual meetings focusing on the interests and concerns that come from a full-time teaching assignment. Throughout the course, interns will be a) exposed to innovative teaching strategies and materials developed by local and national social studies teachers-consultants, and b) provided with background for handling special problems with which they are confronted once in the classroom on a regular basis, i.e. discipline, human interaction, sexism, racism, student use of drugs, etc.

Interns will attend a minimum number of sessions depending upon interest, need and/or referral by an instructional consultant of the Social Studies Program.

Prerequisite: Must be taken concurrently with ED 455.

ED 455 Internship (12 credits)

Supervised teaching in the public schools. Students spend approximately fourteen (14) weeks in public school classrooms and participate in such further activities as a supervising teacher may direct.

Prerequisite: ED 245, ED 428.

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.) Except for ED 454, 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.

PRE-LAW STUDIES

ADVISOR: Thomas W. Church, Jr. (*Political Science*)

There is no formalized "pre-law" curriculum at Oakland because no set of specific courses is necessary for either admission to, or success in, American law schools. 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 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 incoming 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 development of these abilities. The best advice to students planning legal careers is to choose courses that emphasize analytical thinking and critical writing, and to do well in them.

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 operation of American institutions: particularly the 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 in law school — the following courses should be of some interest. It must be emphasized, however, that none of these courses is 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; Principles and Processes Civil Rights and Civil Liberties
Sociology 320	Sociology of Crime and Punishment

Both the Library and the Department of Political Science maintain a collection of law school catalogs; a member of the Department of Political Science serves as the pre-law advisor for students with specific questions or 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) or the Political Science Department (656 Vandenberg).

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, a field-practicum in Health-Medical Behavioral Sciences offered by Allport College, and the Community Service courses. For information on these programs see the respective Catalog entries.

The College of Arts & Sciences administers 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 the College will require a release from parents absolving the University of responsibility for the well-being of students under eighteen 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.

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 and from the Department of Modern Languages and Literatures.

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 305 Science in the Elementary School (4 credits)

Content and methodology appropriate to students in the elementary education program.

Prerequisite: Major standing in elementary education.

SCI 505 Basic Concepts and New Developments in Science (4 credits)

Basic concepts in science and science methodology. An intensive 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 515 Environmental Education—Higgins Lake (2 credits)

Conducted under the auspices of the Michigan Department of Natural Resources at the Higgins Lake Conservation School. Staffed by DNR personnel and faculty members from Michigan universities. Aims to provide information and methodology for the educator on land use, water resources, types of pollution, and other aspects of the environment. Treats contemporary problems with scientific analysis in a socio-economic context. Would propel the educator into an action phase in his own community. A resident course for one week, Sunday p.m. through Friday. Available for any one of five weeks during the summer. Details available.

GRADUATE STUDIES IN THE COLLEGE OF ARTS AND SCIENCES

The following departments or programs offer instruction leading to the degree of Master of Arts:

- Area Studies
- English
- History
- Mathematics
- Psychology

The following departments offer instruction leading to the degree of Master of Science:

- Biological Sciences
- 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 Catalog.



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; Sid Mittra; Norton C. Seeber;
Andrew C. Stedry (Visiting)

ASSOCIATE PROFESSORS: Eleftherios N. Botsas; Daniel N. Braunstein;
Karl D. Gregory; John E. Tower; Alan G. Weinstein

ASSISTANT PROFESSORS: David P. Doane; Alice C. Gorlin; Douglas
D. Gregory; John Hurd II; Kenneth B. Moberg; Gadis Nowell; Richard
M. Reese; Richard M. Steers; Eugene F. Stone; Kenneth C. Young

INSTRUCTORS: Diane B. Herker; Harvey A. Shapiro; Socrates Tountas

ADJUNCT PROFESSOR: Theodore O. Yntema

VISITING LECTURERS: Paul Banas; Jack Parrish; Charles T. Weber

The School of Economics and Management offers several programs for persons interested in obtaining the skills and information necessary for the management of profit-making businesses, not-for-profit enterprises (e.g., health care institutions, educational institutions, cooperative societies), and governmental units. The student may elect one of the following programs as the basis for his/her education in management and economics:

1. Bachelor of Science (B.S.) in Management.

2. Bachelor of Science (B.S.) in Management combined with a concentration in a specific field of management:

Accounting/Finance; Human Resources Management; or Public Management. The School is developing concentrations in other functional areas.

3. Bachelor of Science (B.S.) in Management combined with a concentration in an area outside of the School of Economics and Management:

Afro-American Studies; Computer and Information Sciences; Environmental Studies; Health-Medical Behavioral Sciences; Journalism; Public and Societal Systems; or Social Justice and Corrections.

4. Bachelor of Arts (B.A.) in Economics with or without one of the concentrations in the areas outside of the School of Economics and Management

The concentrations are listed under (3) above.

5. Bachelor of Science (B.S.) with an independent concentration from the School of Economics and Management

A program designed for the explicit needs of the student.

6. Bachelor of Science (B.S.) or Arts (B.A.) in another School at Oakland University with a concentration in management or economics.

7. Masters of Science in Management (M.S.M.):

Outstanding students who have already received a Bachelors degree or are entering their senior year with their major requirements completed may be eligible to enter the Masters of Science in Management (M.S.M.) program in the School of Economics and Management. (See page 306 and also consult the Graduate Catalog.)

These management and economics programs are detailed in the following pages.

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 not-for-profit enterprises, public or private. In this program, a gen-

eral education is combined with the development of analytical approaches which will enable the student to find 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 into many positions in business, government, and administration, industry training programs or graduate schools of management. The program's emphasis on analysis and analytical tools, such as the computer, opens the way to positions in many areas of rapidly developing technology and expanding employment opportunities.

To aid in obtaining initial entry into various positions in business, government, and other institutions, the management program offers the student opportunity to concentrate elective work either in a functional area of management or in some area of academic interest outside of management.

Curriculum Changes

The curriculum described below will be effective for students entering the University in 1974-75 and after. Students enrolled prior to 1974 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	8	32	26%
c. Management/Economics Electives	4	16	13%
3. Electives	5	20	16%
TOTAL FOR DEGREE	<u>31</u>	<u>124</u>	<u>100%</u>

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:

(a.) 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/she will be required to take courses in the Department of Learning Skills until he/she earns the certification of proficiency in English (normally two courses).

(b.) Distribution Requirements

The student must take at least one course in each of the following four fields within the College of Arts and Sciences.

(1) 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).

(2) 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).

(3) Natural Sciences (4 credits)

Any course for which the student qualifies that is offered by the departments of Biology, Chemistry, or Physics, any course in Science or Environmental Studies (except ENV 151), or any course in Engineering (EGR).

(4) Area Studies (4 credits)

Any one of the following introductory Area Studies courses: China (AS 062), Japan (AS 063), Africa (AS 064), India (AS 066), Latin America (AS 068), and the Slavic World (AS 070).

(c.) 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.

(d.) 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 may be taken in any year of the student's program.

2. 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 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.

b. Management Core Program

The required management core program consists of the following courses:

		Credits
MGT 200	Managerial Accounting	5
MGT 203	BASIC Programming (or any other course in computer programming)	2
MGT 210	Statistical Methods for Management	5
MGT 300	Management Systems Analysis	4
MGT 330	Organizational Behavior I	4
MGT 331	Organizational Behavior II	4
MGT 435 or MGT 436	Management Strategies and Policies or Public 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	4
ECN 405	Econometrics	
MTH 322	Mathematical Models in the Social Science	—
TOTAL IN MANAGEMENT CORE PROGRAM		32

c. Management/Economics Electives

The student completes his/her work in management by electing four additional courses (16 credits) offered by the School of Economics and Management. These electives must be chosen from among ECN 217 and the economics or management courses numbered 300 or higher. **At least two of the courses must be at the 400 level.** 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. To guide the student in the selection of these electives and to allow him/her to indicate his/her area of interest, concentrations in Accounting/Finance, Human Resources Management, and Public Management have been developed. (See pages 293-295 of this catalog for details.)

3. 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. To guide the student in the selection of these electives and to allow him/her to indicate his/her area of interest, the School of Economics and Management has joined with other units of the University in offering several concentrations in areas outside of management. The concentrations currently available to the management major are described on pages 293 of this catalog.

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 page 297 of this catalog.)

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:

- a. Have completed at least 124 credits.
- b. 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.
- c. Have a cumulative grade point average of at least 2.00 in courses taken at Oakland University and in courses in the major, including the cognate courses.
- d. Have completed at least 8 credits in electives.

- e. Have completed the program detailed above under General Education and Management Major Requirements.
- f. 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, MGT 210, and MTH 121-122 (or equivalent); (c) the completion of 56 credits; and (d) a cumulative grade point average of 2.00 overall and in management, economics, and required math courses.

**BACHELOR OF SCIENCE IN MANAGEMENT
(A Typical Program):**

Semester 1	Credits	Semester 2	Credits
Learning Skills	4	Learning Skills	4
ECN 100	4	ECN 101	4
MTH 121 (or MTH 154)	4	MTH 122 (or MTH 155)	4
Letters Distribution Requirement	<u>4</u>	Arts Distribution Requirement	<u>4</u>
	<u>16</u>		<u>16</u>
 Semester 3		 Semester 4	
MGT 200	5	MGT 210	5
MGT 203	2	ECN 216	4
Social Science Distribution Requirement	4	Social Science Distribution Requirement	4
Natural Science Distribution Requirement	<u>4</u>	Area Studies Distribution Requirement	<u>4</u>
	<u>15</u>		<u>17</u>
 Semester 5		 Semester 6	
MGT 300	4	Quantitative Methods Course (MGT 340, MGT 305, MGT 442, ECN 405, MTH 322)	4
MGT 330	4	MGT 331	4
MGT/ECN 300-level Elective	4	MGT/ECN 300-level Elective	4
Distribution Elective	4	Elective	<u>4</u>
	<u>16</u>		<u>16</u>

Semester 7		Semester 8	
MGT/ECN 400-level		MGT 435	4
Elective	4	MGT/ECN 400-level	
Elective	4	Elective	4
Elective	4	Elective	4
Elective	<u>4</u>		
	16		<u>12</u>

CONCENTRATIONS FOR MANAGEMENT MAJORS

a. Concentrations in Specific Areas of Management (Internal Concentrations)

To guide the student in the selection of his/her management electives the School of Economics and Management has developed the following concentrations in specific management areas. These concentrations typically consist of a suggested set of 16-25 credits of ECN/MGT courses which will provide the student with a more extensive training in some specific functional field of management.

1. Concentration in Accounting/Finance

The concentration in Accounting/Finance aims at developing the specific skills, modes of analysis, and institutional information useful in working in the accounting and finance areas of a profitmaking business or not-for-profit enterprise. It is designed for students who plan to enter the financial areas of enterprises and not as a preparation for a career as a certified public accountant (CPA). The current concentration program includes advanced work in accounting and basic and advanced work in finance.

The concentration in Accounting/Finance consists of six courses (25 credits) specified as follows:

		Credits
MGT 200	Managerial Accounting (required in the management program)	5
MGT 310	Cost Accounting and Budgeting	4
MGT 311	Intermediate Accounting	4
MGT 322	Managerial Finance I	4
Two courses from the following list of electives at least one of		

which is a 400-level course:

MGT 320	Personal Financial Management	
MGT 321	Monetary and Fiscal Theory and Policy	
ECN 323	International Economic Relations	
MGT 411	Auditing	
MGT 412	Behavioral Effects of Accounting Information	8
MGT 421	Investment Analysis	
MGT 422	Managerial Finance II	
MGT 423	The Multinational Firm	—
		25

For further information on the concentration in Accounting/Finance, see the concentration coordinator, Mr. John Tower.

2. Concentration in Human Resources Management

The concentration in Human Resources Management aims at developing the requisite skills to administer the various personnel functions in organizations. It is designed primarily for students who intend to pursue careers where the management of people at work is a central concern (e.g., personnel management, labor relations, first-line supervision, etc.). Emphasis will be placed on acquiring an in-depth understanding of the tools and techniques used in the acquisition, development, and utilization of an organization's human resources. As such, the program will include broad coverage of such topics as personnel psychology, personnel administration, labor-management relations, etc., in addition to a basic knowledge of organizational behavior.

The concentration in Human Resources Management consists of six courses (24 credits) specified as follows:

	Credits
MGT 330-331 Organizational Behavior I-II (required in the management program)	8

MGT 433	Labor-Management Relations	4
MGT 434	Management of Human Resources	4
Two courses from among the following:		
MGT 430	Assessment of Organizational Behavior	
MGT 431	Leadership and Group Performance	8
MGT 432	Motivation and Work Behavior	
ECN 368	The Economics of Human Resources	— 24

Students wishing to pursue this concentration are advised to take MGT 330 and MGT 331 in their second year. For further information on the concentration in Human Resources Management, see the concentration coordinator, Mr. Richard Steers.

3. Concentration in Public Management

The concentration in Public Management is offered jointly with the Department of Political Science. It is designed to provide the student with a more extensive understanding of the institutions of the political system and of governmental agencies. The student obtains some of the particular skills and perspectives that relate to working for non-profit enterprises and, in particular, governmental units.

The concentration in Public Management consists of six courses (24 credits) specified as follows:

		Credits
ECN 336	The Economics of the Public Sector	4
PS 100	American Politics	4
PS 205	Politics of the Local Community	4
PS 251	Public Administration	4
PS 351	Public Budgeting	4
MGT 436	Public Management Strategies and Policies	4
		— 24

For further information on the concentration in Public Management, see the concentration coordinator, Mr. Karl Gregory.

b. Concentration in Areas Outside of Management and Economics (External Concentrations)

To guide the student in the selection of his/her general electives, the management major may participate in one of a set of concentrations developed by departments outside of the School of Economics and Management or by the School jointly with another department in the University. These concentrations typically consist of a set of 4-6 courses (16 to 24 credits) taken in courses outside of the management major. The concentrations that have been developed for the 1974-75 academic year are described briefly in the following section. Other external concentrations are under development for introduction in future years.

1. Afro-American Studies — The standard concentration in Afro-American Studies for the management major is a minimum of seven courses (28 credits) from an approved list given on page 253 of this catalog.

2. Computer and Information Science — The standard concentration in Computer and Information Science for majors is four courses (16 credits) specified as follows: MGT 205 or CIS 180, CIS 181, MGT 300 or MGT 444, and MGT 305. Other combinations of courses may be acceptable, see page 268 of this catalog.

3. Environmental Studies — The standard concentration in Environmental Studies for management majors is five courses (20 credits) specified as follows: ENV 151, 181, 182, 202, and ENV 305 or ECN 208. See page 268 of this catalog.

4. Health-Medical Behavioral Sciences — The standard concentration in Health-Medical Behavioral Sciences for the management major is five courses (20 credits) specified as follows: AC 101-102, AC 250-251, and either AC 400, AN 420, or SOC 368. See page 270 of this catalog.

5. Journalism — The standard concentration in Journalism for management majors is to successfully complete five courses (20 credits) in journalism courses including SCN 276 (News Writing). See page 270 of this catalog.

6. Public and Societal Systems — The standard program in the School of Engineering concentration in Public and Societal Systems for management majors is to complete five courses

(20 credits) from an approved set of courses. Of the 20 credits, the student must take PSS 100 and PSS 200 (an introductory course and a seminar in Public and Societal Systems), and at least eight (8) credits from outside management. See page 383 of this catalog.

7. Social Justice and Corrections — The standard concentration in Social Justice and Corrections for the management major is 20 credits specified as follows: SOC 430 (Internship for 4 or 8 credits); and the rest of the credits chosen from SOC 221, 325, 327, PS 343, and SOC 430. See page 275 of this catalog.

UNDERGRADUATE PROGRAM LEADING TO THE BACHELOR OF SCIENCE (INDEPENDENT CONCENTRATION)

Students wishing to pursue special interests may develop independent concentrations 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/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.

The student with an independent concentration must meet the following requirements in order to graduate:

- a. Have completed at least 124 credits.
- b. 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.
- c. Have a cumulative grade point average of at least 2.00 in courses taken at Oakland University and in courses in the concentration.
- d. Have completed at least 8 credits in electives.
- e. Have obtained certification of his/her English proficiency.
- f. 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.
- g. 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.

- h. 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 2.00 or better; and (d) an approved Plan of Work.

CONCENTRATIONS IN MANAGEMENT OR ECONOMICS FOR OTHER MAJORS

For students who are majors in another discipline or school but want an introduction to the concepts, tools, analytical technique, and institutions of economics or management, the School of Economics and Management offers concentrations in economics or management. These concentrations may be taken with a wide range of other majors including: Area Studies, Liberal Arts, Modern Language, Engineering, and Computer Science.

The concentrations offered are as follows:

- a. **Concentration in Economics:**
For Engineering majors, see page 381 of this catalog. For other majors, see page 296 of this catalog.
- b. **Concentration in International Economics:**
For Area Studies, Modern Languages and other majors, see page 251 of this catalog.
- c. **Concentration in Management:**
For Engineering majors, see page 381 of this catalog. For other majors, see page 296 of this catalog.
- d. **Concentration in International Management.**
For Area Studies, Modern Language and other majors, see page 251 of this catalog.

1. Concentration in Management for Non-Management Majors

For students in other majors who would like to combine their major with an introduction to the skills, analytical technique, and institutional material obtained in management courses, the School of Economics and Management offers a concentration in management. The concentration in management requires that a student take six courses (25 credits). The courses required are as follows:

	Credits
ECN 100-101 Introduction to Economics I-II	8
MGT 200 Managerial Accounting	5
MGT 330 Organizational Behaviour I	4
Two (2) MGT Electives (300-level)	8
	25

For further information, see the concentration coordinator, Mr. John Tower.

2. Concentration in International Management for Non-Management Majors

For students in other majors, in particular Modern Languages and Area Studies, who would like to combine their major with an introduction to the skills, analytical technique and institutional material related to international management and the multinational firm, the School of Economics and Management offers the concentration in international management. The concentration in international management requires that the student take six courses (25 credits) as follows:

	Credits
ECN 100-101 Introduction to Economics I-II	8
ECN 323 International Economic Relations	4
MGT 200 Managerial Accounting	5
MGT 330 Organizational Behavior I	4
MGT 423 The Multinational Firm	4
	25

For further information, see the concentration coordinator, Mr. E. Botsas.

UNDERGRADUATE PROGRAM LEADING TO THE BACHELOR OF ARTS IN ECONOMICS

The curriculum for the liberal arts major in economics combines an emphasis on the concepts and tools of economics, the hard analytical approach of economics, a broad general education, and the freedom to take several courses in other areas of interest to the student. The student learns to apply economic analysis to major problems that face the nation and the world today: the economic development of our cities; the delivery of health care; the "energy crisis"; environmental degradation; international trade and finance; the role of the multinational cor-

porations; the economic development of less-developed countries; the operation of alternative economic systems; and other areas of concern.

An education in economics is an excellent background for professional education in graduate schools of business administration, public administration, or management, and in law schools. For students who plan to enter the work force directly after graduation, the economics degree will provide entree to management training programs in larger companies, to civil service jobs in government, and to employment in other not-for-profit institutions. To be employed as a professional economist, or to teach economics, a student normally will have to proceed on to graduate school and obtain at least a masters degree in economics and preferably a doctorate.

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	6	25	20%
c. Economics Electives	4	16	13%
3. Electives	9	35	28%
TOTAL FOR DEGREE	31	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. 389 of this catalog for details of these inner col-

leges). 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 (AS 062), Japan (AS 063), Africa (AS 064), India (AS 066), Latin America (AS 068), and the Slavic World (AS 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 program.

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
MTH 121-22	Introductory Mathematics for Social Sciences or MTH 154-55 (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

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 Sciences' General Education Program.

b. 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	5
ECN 216	Microeconomic Analysis	4
ECN 217	Macroeconomic Analysis	4
ECN 418/ECN 480	Selected Topics in Economic Policy/or Seminar in Economics	4
TOTAL IN ECONOMICS CORE PROGRAM		25

c. Economics Electives

The student completes his or her work in economics by electing at least four (4) additional courses (16 credits) in economics electives numbered ECN 300 or higher. **Two of these economics electives must be numbered ECN 400 or higher.** The directed

readings, independent study, and tutoring courses (ECN 390, 494, 490, and 497) may not be used as these required economics electives.

3. 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.

CONCENTRATIONS FOR ECONOMICS MAJORS

To guide the student in the selection of the economics electives and to allow the student to develop an interest in a specific area, several concentrations are available to the economics major. These concentrations represent a set of four to seven courses beyond those required for the economics major that will give the student a solid introduction to another academic area.

The following concentrations are available to economics majors. Other concentrations may become available in the future.

a. **Afro-American Studies** — The standard concentration in Afro-American Studies for the economics major is a minimum of 24 credits as follows: AS 064, HST 291-292, and at least 16 credits from an approved list given on page 253 of this catalog.

b. **Computer and Information Science** — The Concentration in Computer and Information Science for economics majors is 16 credits as follows: MGT 205 or CIS 180, CIS 181, ECN 300 or ECN 444, and MGT 305. Other combinations of courses may be acceptable. See page 268 of this catalog.

c. **Environmental Studies** — The standard concentration in Environmental Studies for economics majors is 20 credits specified as follows: ENV 151, 181, 182, 202, and ENV 305 or ECN 208. See page 268 of this catalog.

d. **Health-Medical Behavioral Sciences** — The standard concentration in Health-Medical Behavioral Sciences for the economics major is 20 credits as follows: AC 101-102, AC 250-251, and either AC 400, AN 420, or SOC 368. See page 270 of this catalog.

e. **Journalism** — The standard concentration in Journalism for economics majors is to successfully complete 20 credits in journalism courses including JRN 200 (News writing). See page 270 of this catalog.

f. **Public and Societal Systems** — The standard program in the School of Engineering's concentration in Public and Societal Systems for the economics major is to complete 20 credits from an approved set of courses. Of the 20 credits, the student must take PSS 100 and PSS 200 (an introductory course and a seminar

in Public and Societal Systems), and at least eight (8) credits of non-economics courses from the list. On page 383 of this catalog.

g. Public Management — The standard concentration in Public Management for economics majors is at least 29 credits specified as follows: PS 100, 205, 251, and 351; ECN 336, MGT 200; and MGT 436. See page 295 of this catalog.

h. Social Justice and Corrections — The standard concentration in Social Justice and Corrections for the economics major is 20 credits as follows: SOC 430 (Internship for 4 or 8 credits); the rest of the credits should be chosen from SOC 320, 325, 327, or PS 343, and SOC 430. See page 275 of this catalog.

RECOMMENDED COURSES FOR STUDENTS INTERESTED IN GRADUATE STUDY

Students who expect to go on to graduate school in economics or management should obtain as strong a foundation as possible in mathematics, economic theory, and the social sciences. Toward this goal, it is suggested that such students

- a. take the MTH 154-155 (Calculus) sequence and very seriously consider taking advanced courses in mathematics;
- b. take ECN 405 (Econometrics) and ECN 417 (Advanced Economic Theory).

Those seriously interested in going on to graduate work are urged to consult an advisor early concerning their programs.

LIBERAL ARTS MAJOR IN ECONOMICS

(A Typical Program)

Semester 1	Credits	Semester 2	Credits
Learning Skills/Elective	4	Learning Skills/Elective	4
MTH 121 (or MTH 154)	4	MTH 122 (or MTH 155)	4
ECN 100	4	ECN 101	4
Distribution Requirement	<u>4</u>	Distribution Requirement	<u>4</u>
	16		16
Semester 3		Semester 4	
ECN 216	4	ECN 217	4
ECN 210 (or MGT 210)	5	Distribution Requirement	4
Distribution Requirement	4	Social Science Requirement	4
Elective	<u>4</u>	Elective	<u>4</u>
	17		16
Semester 5		Semester 6	
Economics Elective (300 level)	4	Economics Elective (300 level)	4
Social Science Requirement	4	Distribution Requirement	4
Distribution Requirement	4	Elective	4
Elective	<u>4</u>	Elective	<u>4</u>
	16		16

Semester 7		Semester 8	
Economics Elective (400 level)	4	ECN 480 or ECN 418 Elective	4
Economics Elective (400 level)	4	Elective	3
Elective	4		
Elective	<u>4</u>		
	16		<u>11</u>

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 page 105 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 the degree is to be conferred.
3. Have a cumulative grade point average of at least 2.00 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 210, ECN 216, ECN 217, MTH 121-122 (or equivalent); (c) completion of 56 credits or more; and (d) at least a 2.00 cumulative grade point average overall and in major courses.

CONCENTRATIONS IN ECONOMICS FOR NON-ECONOMICS MAJORS

1. Concentration in Economics

Students in other majors who would like to combine their major with an introduction to economic theory and its application

to the problems of this world may obtain a concentration in economics. The concentration in economics requires that a student take 20-21 credits, including ECN 100-101, two 300-level electives in economics, and a statistics course (either ECN 210, SOC 203, PS 222, PSY 252, or MTH 125). For further information, contact the concentration coordinator, Mr. John Tower.

2. Concentration in International Economics

Students who wish to combine a knowledge of international economics with their major may take a concentration in international economics. This concentration is specifically appropriate for foreign language and Area Studies students. The concentration in international economics requires that a student take 20-21 credits, including ECN 100-101, ECN 323, ECN 423, and a statistics course (either ECN 210, SOC 203, PS 222, PSY 252, or MTH 125). For further information, contact Mr. E. Botsas, the concentration coordinator.

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. Outstanding seniors who have completed their major requirements may be admitted to the M.S.M. program. 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 1975-1976 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.

COURSE OFFERINGS IN MANAGEMENT

BASIC COURSES

The following 200-level management courses are part of the core program for the management major and will be offered each Fall and Winter and in either the Spring or Summer. The student should take these courses in his/her sophomore year (28-58 credits) or as soon after entering Oakland as possible. Under special circumstances, the prerequisites for a course may be waived.

MGT 200 Managerial Accounting (5 credits)

Introduction to management information systems as aids to decision-making and for the identification, quantification, and communication of managerial information. The course will include accounting and other internal management languages.

MGT 203 BASIC Programming (2 credits)

This course is an introduction to computer programming using the BASIC computer language and interacting through remote teletype terminals directly with the Burroughs 5500 computer on campus.

MGT 205 Introduction to Computer Problem-Solving (4 credits)

Introduction to the use of a computer as a tool in solving problems. Students learn the BASIC and FORTRAN languages in an interactive time-sharing environment and are required to demonstrate proficiency through assigned problems. Ordinarily offered in the Fall semester.

Prerequisites: Knowledge of high school algebra.

MGT 210 Statistical Methods for Management (5 credits)

Statistical techniques useful in business and economic analysis. Emphasis on statistical inference, including hypothesis testing, estimation, and regression techniques. Identical with ECN 210.

Prerequisites: MTH 122 or MTH 154.

MANAGEMENT ELECTIVES

The following is a list and description of the upper-level required

and the elective courses offered in the past three years in management. Students should use this list of elective courses 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.

The following **300-level management courses** should be taken by the student in his/her junior year (59-90 credits). The 300-level management electives are designed for management majors and students with concentrations in management. Major standing is not required for these courses but some of the courses will have specific prerequisites or corequisites. A student should have his basic courses completed before taking these courses. Non-majors may elect these courses if they meet the prerequisites.

MGT 300 Management Systems Analysis (4 credits)

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

Prerequisite: ECN 216.

MGT 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 ECN 303. Ordinarily offered in the Fall semester.

Prerequisite: ECN 101.

MGT 305 Computer Systems for Problem-Solving (4 credits)

This is an advanced communications and problem-solving course in which students learn how to specify and design systems for computers. The course consists of field studies by groups of students which will lead to computerized prototype solutions of "real-world" problems. Oral and written skills will be stressed in the preparation of all the materials by the groups.

Prerequisites: Programming experience in a higher level language (i.e., BASIC or FORTRAN).

MGT 310 Cost Accounting and Budgeting (4 credits)

An in-depth analysis of accounting as a system to provide information for optimal managerial decisions and their implementation. Topics covered will include

an analysis of various accounting planning and control models with a view toward effective and efficient cost control.

Prerequisite: MGT 200.

MGT 311 Intermediate Accounting (4 credits)

An in-depth study of selected problems in accounting. Emphasis will be placed on external reporting and the use of accounting as the language of the financial community.

Prerequisite: MGT 310.

MGT 320 Personal Financial Management (4 credits)

Students learn how to approach financial resource allocation problems. It is asserted that personal savings, life and other forms of insurance, real estate, investments, purchases of stocks and bonds, and other forms of financial investment are alternative ways of "spending" one's disposable income. Each form of investment/saving is ranked according to risk/return criteria and students are taught to apply the systems approach to personal money management.

Prerequisite: ECN 101.

MGT 321 Monetary and Fiscal Theory and Policy (4 credits)

Analysis of modern monetary, banking, and fiscal theories and policies. The course investigates both domestic and international monetary analysis and policies, and the relationship between monetary and fiscal policies as they effect the economy. Identical with ECN 321.

Prerequisite: ECN 101.

MGT 322 Managerial Finance I (4 credits)

Analysis of the operation of major financial institutions and markets. The sources and uses of funds for corporations and other organizations. Identical with ECN 322.

Prerequisites: ECN 216 and MGT 200.

MGT 324 Business in the American Economy (4 credits)

Public attitudes toward business and government regulation of business in our free enterprise society. Students are exposed to legal, social, and moral responsibilities of business to the individual, the community, the society, and the government. The course will explore the role of business in the current environment of rapid change, shortages, minority demands, demands for pollution controls, and violence. Identical with ECN 324.

Prerequisite: ECN 216.

MGT 325 Industrial Organization (4 credits)

The structure of American industry and the factors affecting it. The course will emphasize economies of scale; barriers to entry; structure-behavior relationships, including pricing, product differentiation, and technical change; evaluation of performance and implications for public policy. Identical with ECN 325.

Prerequisite: ECN 216.

MGT 330 Organizational Behavior I (4 credits)

An exploration of the theoretical and empirical issues surrounding organizational management as it is related to such individual and organizational processes as perception, learning, motivation, communication, decision making, leadership, and power and authority. In all cases, the development of the student as an analytical consumer of data will be stressed. Identical to PSY 235. Ordinarily offered in the Fall and Winter semesters.

Prerequisite: MGT 210 suggested but not required.

MGT 331 Organizational Behavior II (4 credits)

An analysis of organizational management and its relationship to group behavior, organizational conflict and change, personnel development, and general system functioning. Emphasis is on the theoretical and empirical issues from general social and industrial psychology. Identical to PSY 236. Ordinarily offered in

the Fall and Winter semesters.
Prerequisite: MGT 330.

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.

MGT 390 Apprentice College Teaching (2 credits)

An elective course open to any well qualified upperclassman who wins consent of a faculty member in his major field to assist in presenting a regular college course to underclassmen.
Prerequisites: Major standing and permission of the instructor.

MGT 392 Directed Readings in Economics (2 credits)

Independent but directed readings for junior and senior majors in fields of economics in which advanced courses are not available. Offered every semester.
Prerequisites: Major standing and permission of the instructor.

The following 400-level management electives are designed for management students that have achieved major standing. The management major must elect at least two (2) of these courses (MGT 400 to MGT 467) as part of his/her major program.

MGT 400 Advanced Systems Analysis (4 credits)

The course engages topics in the modelling, instrumentation, and control of complex systems. Particular emphasis is placed on the specification, testing, and implementation of policies in environments in which direct controls must be foregone in favor of educational control policies. Among the specific areas in which applications may be found are marketing, education, weather modification, living resource management, and energy-nutrient use management. Identical with ECN 400.
Prerequisites: Major standing and MGT 300.

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: Major standing.

MGT 403 Marketing Management (4 credits)

An in-depth study of a selected topic relevant to the management of the marketing function. Topics that may be covered include: marketing and society; advertising and the mass media; institutional marketing; distribution channel management; promotional policies. This course may be repeated when a different topic is covered.
Prerequisites: MGT 402 and major standing.

MGT 411 Auditing (4 credits)

An introduction to the objectives, techniques, and standards of internal and external audits of the accounts of an enterprise. The "generally accepted auditing standards" will be critically examined.
Prerequisites: MGT 311 and major standing.

MGT 412 Behavioral Effects of Accounting Information (4 credits)

An examination of the application of the results of behavioral science to account-

ing, budgeting, and other management information and control systems.

Prerequisites: MGT 310 and major standing.

MGT 421 Investment Analysis (4 credits)

The course provides a comprehensive treatment of the important aspects of security analysis and portfolio theory. Four areas will be covered: A) the scope of investment management, organized securities markets, and the influence of the macropolicy instruments on the money and capital markets; b) the analytical procedures for appraising securities; c) portfolio analysis; and d) the assessment of capital market efficiency.

Prerequisites: MGT 322 and major standing.

MGT 422 Managerial Finance II (4 credits)

The application of the tools of financial analysis to specific cases in the financial management of corporate businesses and not-for-profit enterprises.

Prerequisites: MGT 322, MGT 200 and major standing.

MGT 423 The Multinational Firm (4 credits)

Analysis of the scope, structure, and environment (legal, social, political, and economic) with emphasis on management strategies of planning, marketing, location, and finance across cultural and national boundaries. Identical with ECN 423.

Prerequisites: ECN 423 or major standing.

MGT 424 The Legal Environment of Enterprise (4 credits)

The objective of this course is to familiarize the student with the legal framework in which business decisions are made and the types of economic conflict and political activity that has created this framework. Topics to be covered include: contracts; anti-trust legislation; conflict resolution; and regulatory agencies.

Prerequisite: Major standing.

MGT 430 Assessment of Organizational Behavior (4 credits)

Use of findings and methods of various behavioral research strategies as input 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.

Prerequisites: MGT 331 and major standing.

MGT 431 Leadership and Group Performance (4 credits)

A comprehensive examination of selected theories of leadership. Emphasis on relevant empirical evidence and application of the theories to case studies which involve leadership behavior and group functioning.

Prerequisites: MGT 331 and major standing.

MGT 432 Motivation and Work Behavior (4 credits)

Analysis and discussion of individual and organizational factors affecting employee motivation, performance, and satisfaction in the work environment. Based on a review of several contemporary theories of work motivation, the course will focus primarily on the analysis of interrelationships between motivational processes and other important variables in the organizational milieu. Topics to be covered include: the role of leadership; job design; environmental variation; compensation policies; goal-setting techniques; and group influences as each affects employee attitudes and behavior.

Prerequisites: MGT 331 and major standing.

MGT 433 Labor-Management Relations (4 credits)

Analysis of management-employee relations in modern industry. Topics covered include: factors influencing the supply and demand for labor; evolution and gov-

ernment of trade unions; procedures and economic impact of collective bargaining; public policy concerning labor and management relations. Identical with ECN 433.

Prerequisite: Major standing.

MGT 434 Management of Human Resources (4 credits)

Exploration and analysis of the role of the personnel function in modern organizations. Topics covered include: job analysis and design; manpower planning; recruitment, selection, and placement; employee training and development; performance analysis and appraisal; compensation policies and practices; employee information systems; and personnel research techniques. Emphasis will be placed throughout the course on viewing each topic both from a psychological and from a managerial standpoint.

Prerequisites: MGT 330, MGT 331 and major standing.

MGT 435 Management Strategies and Policies (4 credits)

The application of management tools of economics, statistics, organizational behavior, accounting, and quantitative methods to the systematic analysis of organizational case studies.

Prerequisites: Major standing and senior status.

MGT 436 Public Management Strategies and Policies (4 credits)

The application of the management tools of economics, political science, statistics, accounting, and organizational behavior to the systematic analysis of case studies drawn from experience in the governmental sector or other not-for-profit enterprises.

Prerequisites: Major standing and senior status.

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: Major standing.

MGT 443 Production Management (4 credits)

Analysis of the economic problems encountered in the management of production processes in general manufacturing and service industries. Tools such as mathematical programming, statistical analysis, and Monte Carlo methods will be used to solve problems of inventory management, quality control, plant and equipment investment, facility location, operations scheduling, etc.

Prerequisites: MGT 340 and major standing.

MGT 444 Simulation in Management (4 credits)

An introduction to the use of simulation techniques in management analysis.

Prerequisite: Major standing.

MGT 467 Health Care Organization (4 credits)

The application of the tools of economic analysis to the health care industry and government health care policy. The class will examine the effects of the special characteristics of health care and the current organization of the medical services industry on the pattern of health care produced, its distribution, and the allocation of resources within the industry. Proposed changes in the current system, such as National Health Insurance, will be examined and benefit/cost analysis will be applied to selected public policy problems such as the public funding of medical research.

Prerequisites: Major standing.

MGT 490 Independent Research (2 or 4 credits)

Offered every semester.

Prerequisites: Major standing and permission of the instructor.

MGT 494 Independent Group Study (4 credits)

Students in this course determine which current management 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. Prerequisites: Major standing and permission of the Committee on Instruction.

COURSE OFFERINGS IN ECONOMICS**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 (5 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, Winter, and Spring semesters. Identical with MGT 210.

Prerequisite: MTH 122.

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.

Prerequisite: ECN 101 or equivalent.

Prerequisite or corequisite: MTH 122.

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.

Prerequisite: ECN 101 or equivalent.

Prerequisite or corequisite: MTH 121.

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.

The following **200-level economics electives** are designed for students not majoring in economics or management. They may be taken by economics or management majors but they cannot be used as one of the four (4) required electives in the major.

ECN 208 Economics of the Environment (4 credits)

Application of the tools of economical analysis to the problems of energy, ecology, and the environment. Topics covered include: measures of the quality of life; the environment as a fixed resource; the limits to economic growth; the economics of externalities and public goods; cost-benefit analysis; the analysis of public policy and the environment.

Prerequisites: ECN 100 or ECN 169.

ECN 220 Minority Economic Development (4 credits)

Analysis of the current economic status of minority groups in America, market consequences of discrimination, evaluation of alternative strategies for economic development, and the critical review of recent public economic policies and their impact on change.

Prerequisites: ECN 100 or ECN 169.

ECN 221 Economics of the Afro-American Experience (4 credits)

Application of the tools of economic analysis to: the current economic status of Afro-Americans; the economic history of Afro-Americans; the market consequences of discrimination; the evaluation of alternative strategies for economic development; and the critical review of recent public economic policies and their impact on change.

ECN 223 The Indian Economy (4 credits)

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

Prerequisites: Permission of the instructor.

ECN 225 American Economic Growth and Development (4 credits)

Study of the people, institutions, events, and overall trends in the American economy since colonial times. Emphasizes qualitative and quantitative patterns of change in resource organization for social and private goals.

Prerequisite: Sophomore standing.

ECN 251 The Soviet Economy (4 credits)

The history of Soviet economic development; analysis of the principles of operation of the Soviet economy, with emphasis on planning techniques, the relationship between administrative structure and decision-making, and problems of resource allocation.

Prerequisites: ECN 100 or ECN 169.

The following 300-level economics electives are designed for majors in economics and management. Major standing is not required to take these courses, but some of them will have specific prerequisites or corequisites. Non-majors may take these courses if they meet the prerequisites.

ECN 300 Systems Analysis (4 credits)

Emphasize 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.

Prerequisite: ECN 216.

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.

Prerequisite: ECN 101.

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.

Prerequisite: ECN 101.

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.

Prerequisite: ECN 308 or permission of the instructor.

ECN 321 Monetary and Fiscal Theory and Policy (4 credits)

Analysis of modern monetary, banking, and fiscal theories and policies. The course investigates both domestic and international monetary analysis and policies, and the relationship between monetary and fiscal policies as they effect the economy.

Prerequisite: ECN 101.

ECN 322 Capital Markets (4 credits)

Analysis of the operation of major financial institutions and markets. The sources and uses of funds for corporations and other organizations. Identical with MGT 322.

Prerequisites: ECN 216 and MGT 200.

ECN 323 International Economic Relations (4 credits)

An introduction to elementary international trade theory, the international monetary mechanism, exchange-rate regimes, the balance of payments, and economic interdependence.

Prerequisite: ECN 101.

ECN 324 Business in the American Economy (4 credits)

Public attitudes toward the government regulation of business in our free enterprise society. Students are exposed to legal, social, and moral responsibilities of business to the individual, the community, the society, and the government. The course explores the role of business in the current environment of rapid change, shortages, minority demands, demands of pollution controls and violence.

Prerequisite: ECN 216.

ECN 325 Industrial Organization (4 credits)

The structure of American industry and the factors affecting it, with emphasis on economies of scale; barriers to entry; structure-behavior relationships, including pricing, product differentiation, and technical change; evaluation of performance and implications for public policy.

Prerequisite: ECN 216.

ECN 326 Economic Development (4 credits)

Application of the tools of economic analysis to the problems of economic development and growth.

Prerequisite: ECN 101.

ECN 327 African Economic Development (4 credits)

The application of the tools of economic analysis to: the historical development of African economies; the evaluation of current strategies for their economic development; and the role of the developed countries.

Prerequisite: ECN 101.

ECN 328 American Economic History (4 credits)

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

Prerequisites: ECN 101 and ECN 210 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.

Prerequisite: ECN 216.

ECN 350 Economic Structures and Systems (4 credits)

A comparative analysis of alternative forms of social organizations and how each attempts to solve the problems of resource allocation, pricing, income distribution, and growth. Capitalism, market socialism, socialism, and the command

economy are emphasized.

Prerequisite: ECN 216.

ECN 368 Economics of Human Resources (4 credits)

Economic analysis of the functioning of labor markets, with emphasis on investment in human capital; the role of education; human capital development, the structure of unemployment; labor market differentiation by race, sex, and age; the geographic and occupational mobility of labor; and the inflation-unemployment trade-off.

Prerequisites: ECN 216 or permission of the instructor.

ECN 392 Directed Readings in Economics (2 credits)

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

Prerequisite: Permission of the instructor.

The following 400-level economics electives are designed for economics and management students that have achieved major standing. The economics major must elect at least two (2) of these courses (ECN 400 to ECN 467) as part of his major program.

ECN 400 Advanced Systems Analysis (4 credits)

The course engages topics in the modelling, instrumentation, and control of complex systems. Particular emphasis is placed on the specification, testing, and implementation of policies in environments in which direct controls must be foregone in favor of educational control policies. Among the specific areas in which applications may be found are marketing, education, weather modification, living resource management, and energy-nutrient use management. Identical with MGT 400.

Prerequisites: Major standing and ECN 300.

ECN 405 Econometrics (4 credits)

An introduction to the testing of economic models, expressed mathematically, by statistical methods.

Prerequisites: Major standing 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.

Prerequisite: Major standing.

ECN 418 Selected Topics in Economic Policy (4 credits)

Prerequisite: Major standing.

ECN 420 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.

Prerequisite: Major standing.

ECN 423 The Multinational Firm (4 credits)

Analysis of the scope, structure, and environment (legal, social, political, and economic) with emphasis on management strategies of planning, marketing, location, and finance across cultural and national boundaries.

Prerequisites: ECN 323 or major standing.

ECN 433 Labor-Management Relations (4 credits)

Analysis of management-employee relations in modern industry. Topics covered include: factors influencing the supply and demand for labor; evolution and gov-

ernment of trade unions; procedures and economic impact of collective bargaining; public policy concerning labor and management relations. Identical with MGT 433.

Prerequisite: Major standing.

ECN 422 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.

Prerequisite: Major standing.

ECN 444 Simulation in Economics (4 credits)

An introduction to the use of simulation techniques in economic analysis. Identical with MGT 444

Prerequisites: Major standing and permission of the instructor.

ECN 467 Economics of Health Care (4 credits)

The application of the tools of economic analysis to the health care industry and government health care policy. The class will examine the effects of the special characteristics of health care and the current organization of the medical services industry on the pattern of health care produced, its distribution, and the allocation of resources within the industry. Proposed changes in the current system, such as National Health Insurance, are examined and benefit/cost analysis applied to selected public policy problems, such as the public funding of medical research. Identical with MGT 467.

Prerequisite: Major standing.

ECN 480 Seminar in Economics (4 credits)

Theses, individual topics, and readings. Ordinarily offered in the Winter semester.

Prerequisite: Major standing.

ECN 490 Independent Research (2 or 4 credits)

Independent individual research on a topic chosen by the student and approved by the Committee on Instruction prior to the term in which the student elects this course.

Prerequisites: Major standing and permission of the Committee on Instruction.

ECN 494 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.

Prerequisites: Major standing and permission of the Committee on Instruction.

ECN 497 Apprentice College Teaching (2 credits)

An elective course open to any well qualified upperclassman who wins consent of a faculty member in his major field to assist in presenting a regular college course to underclassmen

Prerequisites: Major standing and permission of the instructor.

SCHOOL OF EDUCATION

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Richard F. Barron, Director of Graduate Programs

Harry T. Hahn, Director of School Services

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

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INSTRUCTORS: James W. Beers; Carolyn Epperly; Carol Halsted; William D. Hamlin; Billy Joe Minor; JoAnne Minor; William G. Pfaff; Doris M. Sponseller; Diane Vazquez; Delores Wyckoff.

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 offers a B.S. degree in Elementary Education.* This program enables a person to secure a Michigan teaching credential which certifies one to teach all subjects in grades K through 8, as well as the 9th grade subject areas of one's major or minor fields.

Students in this B.S. program must take the planned program in Elementary Education. This planned program in Elementary Education has been developed along a competency-based teacher education model. A student must also concentrate in either one major field or two minor fields outside of education.

The course work included within the planned program in Elementary Education plus the major or minor fields complete all University minimum requirements for graduation except the 124 credit-hour requirement. Additional course hours in free electives or optional professional concentrations may be needed by a student in order to complete all University graduation requirements.

*Subject to the approval of the State of Michigan Department of Education. Pending such approval, students complete the B. A. program in Elementary Education.

B.S. IN ELEMENTARY EDUCATION THE DEGREE PROGRAM

LEARNING SKILLS, 100, 101

0-8 cr.

GENERAL EDUCATION

*ENG 240	Varieties of Literary Experience	4 cr.
*SCI 105	Science Skills for an Everchanging World	4 cr.
*LIN 176	The Nature of Language	4 cr.
*MTH 310	The Integers	(2)
*MTH 311	The Rationals	(2) 4 cr.

- *MUS 149 Music—as an Art and
as an elementary
School Subject 5 cr.

Choice of any one.

- *SS 100 Introduction to Social
Science (4)
- *AS 062 Introduction to
China (4)
- *AS 063 Introduction to
Japan (4)
- *AS 064 Introduction to
Africa (4)
- *AS 066 Introduction to
India (4)
- *AS 068 Introduction to
Latin America (4)
- *AS 070 Introduction to
Slavic World (4) 4 cr. 25 cr.

CORE PROGRAM

1. FOUNDATION

- ED 110 Public Education for
the Future 4 cr.

*2. PHILOSOPHY, SOCIOLOGY, ANTHROPOLOGY, HISTORY COMPONENT

- ED 210a Philosophical Analysis 2 cr.
ED 210b School and Society 2 cr.

Choice of any two:

- ED 250a Educational
Implications (2)
- ED 250b History of Public
Education (2)
- ED 250c Private and Parochial
Schooling (2)
- ED 250d The Formal Education
of Women (2)
- ED 250e Schooling and Social
Stratification (2)
- ED 250f Education and Moral
Development (2)
- ED 250g Political Issues in
Contemporary
Education (2)

3. HUMAN BEHAVIOR COMPONENT

ED 215a	Learning: Theory and Process	(2)	
ED 215b	Developmental Psychology	(2)	
ED 255a	The Teacher and the Atypical Child	(2)	
ED 255b	Testing and Assessment	(2)	
ED 420	Interaction Labor— atory for Teacher Development	(4)	12 cr. 24 cr.

CHILDHOOD CURRICULUM STUDIES

*ED 333			
331	Language Arts/Reading	8 cr.	
*MTH 312	Intuitive Eclidean Geometry	2 cr.	
*MTH 313	Geometry, Statistics, Probability	2 cr.	
*PE 163	Movement Education	2 cr.	
*PE 263	Teaching Physical Education and Play Activity, Pre-school to Grade 3 or		
*PE 264	Teaching Physical Education and Recreation Activity, Grades 4 through 6	2 cr.	
*SCI 305	Teaching Science in Elementary School	4 cr.	
*SS 470	Teaching Social Studies in the Elementary School	4 cr.	24 cr.

PRACTICUM

ED 455	Internship	12 cr.
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FREE ELECTIVE (Optional Concentration)	12 cr.
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ADDITIONAL HOURS TO COMPLETE MAJORS/MINORS	20 cr.
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125 cr.

*These courses are included in the majors/minors.

A TYPICAL FOUR-YEAR PROGRAM

Fall		Winter	
NEW STUDENTS			
LS 100	4 cr.	LS 101	4 cr.
MTH 310, 311	4 cr.	SCI 105	4 cr.
SS 100 or AS	4 cr.	MUS 149	5 cr.
ED 110	4 cr.	ED 210 a & b	4 cr.
LIN 176	4 cr.	ENG 240	4 cr.
ED 250 a-h	4 cr.	ED 255 a & b	4 cr.
ED 215 a & b	4 cr.	MTH 312, 313	4 cr.
Major/Minor	4 cr.	PE 163	2 cr.
		PE 263 or 264	2 cr.
ED 420	4 cr.	SCI 305	4 cr.
ED 333, 331	8 cr.	SS 470	4 cr.
Major/Minor	4 cr.	Major/Minor	8 cr.
Free electives (Optional concentration)	12 cr.	ED 455	12 cr.
Major/Minor	4 cr.		

A TYPICAL JUNIORS TRANSFER PROGRAM

Fall		Winter	
ED 110	4 cr.	ED 250 a-h	4 cr.
ED 210 a & b	4 cr.	ED 215 a & b	4 cr.
MTH 310, 311		SCI 305	4 cr.
or		PE 163	2 cr.
MTH 312, 313	4 cr.	PE 263 or 264	2 cr.
SS 470	4 cr.		
ED 255 a & b	4 cr.	ED 455	12 cr.
ED 420	4 cr.		
ED 333, 331	8 cr.		

MAJOR/MINOR CONCENTRATIONS

A student must choose either **one** major or **two** minors for this B.S. Program in Elementary Education.

MAJOR OPTIONS — 36 credits

- Fine Arts
- History/Social Science
- Language Arts

Mathematics
*Math/Science
Modern Languages
Natural Sciences

MINOR OPTIONS — 24 credits

Fine Arts
Health/Physical Education
History/Social Science
Mathematics
*Math/Science
Natural Sciences

*This combined Math/Science grouping only certifies a person to teach science in the 9th grade.

Please see your faculty advisor for specific course requirements within these major/minor fields.

Optional Professional Concentrations

Students wishing to enhance the quality and breadth of their teaching credential may choose to use their free electives in one of a number of twelve (12) hour professional concentrations. At present these are available in the following fields:

Early Childhood Education
Foundations of Education
Guidance and Counseling
International Education/Semester Abroad
Reading
Special Education

NOTE: Students interested in further information about Professional Concentrations should contact a member of the School of Education who specializes in the area of interest.

Advisement

It is important that students interested in this Elementary Education Program contact their faculty advisor for professional curriculum advisement. General information is also available at the Office of Teacher Education, Room 330 Varner Hall.

SECONDARY EDUCATION

The College of Arts and Sciences offers B. A. degrees with certification for secondary teaching credentials provided by the School of Education.

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	German	Music
Chemistry	Language Arts	Physics
English	Latin	Russian
French	Mathematics	Spanish
Social Studies		

Secondary Teaching Minors

Ten teaching minors are available to the prospective secondary school teacher in the following subject areas:

Art	Physics
Biology	**Political Science
Chemistry	**Psychology
English	Science
Mathematics	Social Studies
Modern Languages	**Sociology

**These minors are for Social Studies majors only.

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 Continuing Certificate after a period of teaching and additional studies. Oakland University sponsors its graduates for the Provisional Elementary and the Provisional Secondary Certificate if the following requirements are met:

1. Completion of a University baccalaureate program with a teaching major (including the required professional sequence) 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.

Students applying for State certification must be accepted to a degree program within the School of Education. We **do not** accept students who seek only State certification.

Graduate students who desire State Certification must complete all degree requirements before they can do their student teaching. Students who can complete all degree requirements either in the Spring or Summer sessions may schedule student teaching in the Winter term prior to completing their degree.

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/her program accordingly.

II. HUMAN RESOURCES DEVELOPMENT

The School of Education offers a B.S. degree with a major in Human Resources Development.

This program is designed to prepare students for service-action careers related to human problems, services, and social change. It provides an opportunity to acquire knowledge and skills which are usable in a wide range of human service 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 rapid 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 either Early Childhood Education or Manpower Development. Also, additional specializations are being planned. This program does not lead to teacher certification.

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 or business and industry 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. Satisfaction of all University graduation requirements, including the standards set for writing proficiency.
2. A 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.

3. A 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
 - d. 24-32 credits in elective courses

Proficiency Testing

The terms used above stating the degree requirements mean 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 advised 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 student's 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 provides education for work in daycare centers, preparation to train parents, mothers, and para-professionals who care for children in various settings; skills for the development, evaluation and licensure 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 the series of early childhood courses. See Director of Human Resources Development for specifics.

Requirements

The concentration in Early Childhood Education for the Human Resources Development major must include a total of 60 credits distributed as follows:

1. **Area of Specialization.** A minimum of 24-28 credits from the following: ED 222 or ED 322, ED 223, ED 224, ED 225, ED 324, ED 325, and ED 326
2. **Supporting Cognate Courses.** A minimum of 24-28 credits including:
 - a. AN 102 or SOC 100, PSY 271, and either AN 231 or PSY 471 or SOC 335, 12 credits
 - b. A selection from the following: AN 102, SOC 100, AN 231, AN/LIN 276, HRD 301, HRD 302, HRD 401, HRD 402, SOC 335, PSY/LIN 335, AN/SOC 336, PSY 471, and additional courses which are related to the development of children, selected with the assistance of an advisor, such as, courses in art, communications, drama, linguistics, literature, modern languages, music, physical education, psychology, and sociology/anthropology, 12-16 credits

3. Internship in Early Childhood Education.

ED 456 or equivalent

8-12 credits**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 experience courses, community service work, and internships usually provide contacts which may lead to employment.

Requirements

The concentration in Manpower Development for the major in Human Resources Development must include a total of 60 credits distributed as follows:

1. **Area of Specialization.** A minimum of 24-28 credits including:
 - a. A minimum of 8 credits in Human Interaction (courses marked HI)
 - b. A minimum of 8 credits in Human Resources Development (courses marked HRD)
 - c. Other courses in Human Interaction or Human Resources Development,

8-12 credits

- 2. Supporting Cognate Courses.** A minimum of 24-28 credits including:
- One course in Psychology, not including UC 054 or PSY 146
 - One course in Sociology or Anthropology, not including SIC 100 or AN 102
 - HRD 401—Organizational Analysis and Change Process
SOC 341—Social Change or other related course, such as: ECN 368, ECN 309, PS 205, SOC 205, SOC 336, or SOC 370
 - HRD 301, HRD 302, HRD 402 or other courses in economics, linguistics, management, political science, psychology, sociology/anthropology, or speech communication to complete the cognate requirements.
- 3. Research or Statistics.** One course must be applied to either of the above groups which includes a research of statistical component, such as: HRD 369, HRD 390, PSY 252, SOC 203, or SOC 307.
- 4. Internship in Human Resources Development HRD 490 or equivalent** **8-12 credits.**

UNDERGRADUATE COURSE OFFERINGS

ED 100 Tutoring Experience in Social Studies (2 credits)

Students will be placed in schools to work with teachers and secondary students. It is expected that forty to fifty hours will be spent with cooperating teachers, and that schedules will be arranged by the students, cooperating teacher, and university coordinator for regular time commitments. Experiences may range from observation of teachers in classroom settings and work with classroom management procedures to tutoring and work as teacher aides. Occasional workshops may be necessary to acquire appropriate skills. It is hoped that consideration can be given to individual priorities for ED 100 enrollees. Transportation is to be arranged by the student.

Prerequisite: NONE (To be taken in Freshman year, if at all possible, as an entry into the secondary social studies program.)

(SCI 105—see page in catalog)

ED 110 Public Education for the Future (4 credits)

The purpose of the course is to familiarize students with teaching as a profession in its multi-faceted aspects. Students will be oriented to Oakland's competency-based program. Field exposure to educational and social programs in the deprived areas will be an integral part of the experience. Students will be assisted in the decision-making process of choosing a teaching career.

ED 200 Micro-Teaching in Social Studies (2 credits)

Students will be placed in schools to work with teachers and secondary students. It is expected that forty to fifty hours will be committed to a cooperating teacher to work as tutors, teacher aides, leaders of small and large group discussions and simulation games, aides in micro teaching (mini-courses), and some regular

center team, including volunteers, para-professionals, teachers, directors, nutritionists, consultants and referral resources as they relate to the effectiveness of the centers program.

ED 224 Early Childhood Programming— (4 credits)
Activities for the Young Child.

Demonstration, planning, and participation in activities for physical, social, and intellectual development. Uses of various media and materials, supportive play activities, and specific art, music, science, language, and other educational activities for young children. Provides a basic repertoire of skills for the early childhood staff member.

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 Issues (4 credits)
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.

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 215.

ED 250a Educational Implications of Family (2 credits)
Roles and Child Rearing Practices

This course will acquaint the student with the educational implications of anthropological, sociological and psychological analyses of child-rearing practices in different cultures.

Prerequisite: ED 210, ED 215.

ED 250b History of Public Education (2 credits)
in the U.S.

This course will acquaint the student with the social, philosophical and historical ideas and events which led to the origin and development of the public school in the U.S.

Prerequisite: ED 210, ED 215.

ED 250c Private and Parochial Schooling (2 credits)
in the U.S.

This course will acquaint the student with the social historical and philosophical origins, trends, effectiveness, and future possibilities of private and parochial schools in the U.S.

Prerequisite: ED 210, ED 215.

ED 250d The Formal Education of Women (2 credits)

This course will acquaint the student with the effects of the formal and informal structure of the school on the development of women in contemporary society.
Prerequisite: ED 210, ED 215.

ED 250e Schooling and Social Stratification (2 credits)

This course will acquaint the student with the role of public schooling in theory and in practice as it relates to patterns of social stratification in the U.S. and other nations.
Prerequisite: ED 210, ED 215.

ED 250f Education and Moral Development (2 credits)

This course will prepare a teacher-in-training to be competent in understanding and guiding the moral development of the child.
Prerequisite: ED 210, ED 215.

ED 250g Political Issues in Contemporary Education (2 credits)

This will be a forum on politically current and controversial educational issues of the day, using film, outside speakers, field trips, and symposia.
Prerequisite: ED 210, ED 215.

ED 250h Independent Study (2 credits)

The purpose of this course is to give students the opportunity to pursue a problem of particular interest to themselves, using the skills of philosophical and sociological analysis in the conceptualization and analysis of an educational issue. Students will work in groups or individually under the guidance of a teacher or teachers.
Prerequisite: ED 210, ED 215.

ED 255a Identifying and Diagnosing Learning and Behavior Problems in Children (2 credits)

Students will demonstrate knowledge of individual differences among normal school population; develop competency in the delivery of educational services to handicapped persons; demonstrate understanding of various theoretical models of behavior (e.g. psychodynamic, behavioral, ecological, and biological) and demonstrate knowledge of the various Statutes, Guidelines and Rules that govern Special Education programs and services in the State of Michigan.
Prerequisite: ED 210, ED 215.

ED 255b Testing and Assessment for Teachers (2 credits)

The purpose of this course is to prepare a teacher-in-training to make effective use of formal, informal and teacher-created assessment techniques in the process of planning, implementing and evaluating instruction.
Prerequisite: ED 210, ED 215.

(SCI 305—see page in catalog)

ED 321 The Teacher and the Atypical Child (4 credits)

The identification and management of atypical children in a regular elementary classroom setting. The course will deal particularly with those children requiring special management techniques and some modification of curriculum. These children may be 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 or ED 210 and 215.

ED 322 Introduction to Early Childhood: Theory and Practice (4 credits)

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-Speaking in the United States (4 credits)

This course is intended to provide an opportunity for teachers and other educators to become familiar with the negative and positive aspects of Latino Education. Lectures, readings, and discussions will deal with background information about the Spanish-speaking in the U.S.; the problems that confront Latinos in the 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 in Early Childhood Programs (4 credits)

In-depth study of home/school coordination and education. Development of skills and sensitivities in the areas of parent education, 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 in Early Childhood (4 credits)

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 Childhood Program Operation (4 credits)

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 de-

signed 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 210 and ED 215 or ED 244 and 245.t

ED 322 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 or ED 210, ED 215.

ED 333 Teaching the language arts (4 credits)

Preparation for the teaching of language arts in the elementary, middle, and early secondary schools. Teaching of composition, creative writing, oral language 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 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. Includes on-campus seminars. IDENTICAL WITH HRD 369.

Prerequisite: Permission of the instructor.

ED 370 Field Problems in Social Science (4 credits)

This course is designed to assist prospective social studies teachers in the identification and solution of instructional problems. Major emphasis is placed on "use" of student background to solve problems peculiar to students and teachers of social studies. Students in the course operate through a written contract agreed upon by themselves, an appropriate public, private and/or parochial school official, and the appropriate representative of the Social Studies Program.

Prerequisite: ED 200.

ED 420 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 labo-

ratory involve the student in role-playing, simulated games, and action-oriented problem solving.

Prerequisite: ED 210, ED 215, ED 250, ED 255.

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.

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 or ED 210, ED 215.

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.

Must be taken concurrently with ED 455.

ED 454 Skill Development Laboratories for Teaching Social Studies (4 credits)

This course is required of all social studies interns. It is designed as a series of workshops, seminars, and individual meetings focusing on the interests and concerns that come from a full-time teaching assignment. Throughout the course, interns will be a) exposed to innovative teaching strategies and materials developed by local and national social studies teachers-consultants, and b) provided with background for handling special problems with which they are confronted once in the classroom on a regular basis, i.e. discipline, human interaction, sexism, racism, student use of drugs, etc.

Interns will attend a minimum number of sessions depending upon interest, need and/or referral by an instructional consultant of the Social Studies Program.

Prerequisite: Must be taken concurrently with ED 455.

ED 455 Internship (12 credits)

For Elementary Education students, the internship during the fifteen week semester may be divided into two segments facilitating a dual assignment for those students demonstrating the need and readiness. Throughout the semester, seminars will be held which will focus on the general concerns of the student interns regarding their student teaching experience. For Secondary Education students, the students will spend approximately fifty days in public school classrooms and participate in such further activities as a supervising teaching may direct. The course includes a seminar dealing with problems of instruction.

Prerequisite: For Elementary Education students: ED 420. For Secondary Education students: ED 244, ED 245, concurrent registration in ED 428, 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, a student may not take any other course work concurrently with ED 455.

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.

Prerequisite: 20 credits in early childhood education courses and permission of instructor.

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. IDENTICAL WITH HI 463.

Prerequisite: ED 420 or permission of instructor.

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.

Prerequisite: Permission of instructor.

ED 490 Independent Study and Research (2 or 4 credits)

A program of directed individual reading and research.

Prerequisite: Permission of the Department of Teacher Education. Such permission will be granted only if a student presents written evidence that a faculty member has consented to supervise his/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 Human Interaction (2 or 4 credits)

Provides an introduction to individual and small group interaction. Considera-

tion 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 Helping Interview (2 or 4 credits)

Emphasizes listening and observation skills, establishing mutual trust and acceptance, and providing support in a one-to-one relationship to help persons in decision-making and to find success in personal endeavors, such as education or employment. Students will learn to recognize applicant's needs for additional supportive services. Includes an introduction to the philosophy, theory and research of the helping relationship. Techniques of instruction include role-playing, simulation, interaction analysis, and experience with actual clients. (NOTE: This course is cross-listed with SCN 305.)

Prerequisite: HI 261 or HI 363 or permission of instructor.

HI 363 Dynamics of Human Relationships in Education and Work Settings (2 or 4 credits)

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. Emphasized 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 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. IDENTICAL WITH ED 463.

Prerequisite: HI 363 or permission of instructor.

HI 464 Techniques of Consultation (4 credits)

Deals with techniques of consultation designed to help teachers, parents, families, employers, peers, pre-professionals, volunteers, and other significant persons in the lives of human resources development clients to support and facilitate client growth. Includes preparation to provide human effectiveness training, behavior modification and decision-making skills for those who are engaged in the process of helping children, youth, adults, or the aged to become more self sufficient and to successfully function in society.

Prerequisite: Two courses in Human Interaction or equivalent.

HUMAN RESOURCES DEVELOPMENT COURSES**HRD 301 The Nature of Man (4 credits)**

A study of the variety of ways in which human nature has been understood, with special attention given to the Behavioral, Humanistic, Marxist and Christian beliefs about man and their implications for policies and practices in the teaching and helping professions. The aim of this course is to develop tolerance for alternative views of man, rather than propagate one view.

HRD 302 Ethical Studies of Personal Crises (4 credits)

A study of the personal crises often encountered in our lives, viewed from the perspective of the ethical and religious questions which often arise for those in education and the helping professions and their clients. Such issues as sexual morality, birth control, abortion, suicide, death, violence, criminal punishment and civil disobedience will be studied as well as the nature of love and loving relationships. Alternative ethical and religious viewpoints will be offered so that students may increase their understanding and tolerance of viewpoints they do not personally hold.

**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 Methadone 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 and Community
Resources (2 or 4 credits)**

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 gather firsthand information from site visitations as well as through audio visual and printed media.

HRD 365 Student Resources Development (2 or 4 credits)

Provides a general overview of the process, philosophy, practice, organization and evaluation of adult student resource development work in colleges and universities, as well as practical supervised experience in typical higher education settings, such as, admissions, career advising, residential living, financial aid, student organizations, student support services, and orientation programs.
Prerequisite: Permission of instructor.

HRD 366 Techniques of Human Resources Development (2 or 4 credits)

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 work 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 Development Procedures (2 or 4 credits)

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: 8 credits in HI or HRD courses or permission of instructor.

HRD 368 Work and Training 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: 12 credits in HI or HRD courses or permission of instructor.

HRD 369 Field Work in Human Resources Development (2, 4, 6 or 8 credits)

Provides supervised experiences in a variety of helping relationships in work settings such as schools, employment offices, social services agencies, and in industry. It includes an orientation to various local community cultural settings and life styles. Experiences emphasize the process of helping young people and adults adjust to education or work experience.

HRD 390 Special Project in Human Resources Development (2, 4, 6 or 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 401 Organizational Analysis and Change Process (4 credits)

Covers a study of the structure of organizations designed to provide human services and development and the process of affecting changes which facilitate improved individual client development. Concerns the assigned role of counselors, teachers, and other helpers within agencies and schools which often interferes

with their helping functions. Anecdotal reports, case studies and simulated situations will be used to study characteristics of such interference and to develop strategies helpers can use in various settings to re-structure their role and function and/or agency policy to best solve current social problems.

Prerequisite: Junior standing and two courses in ED, HI, or HRD.

HRD 402 Human Services Delivery and Evaluation (4 credits)

Covers systems analysis and experimental design for program development and research in human services. Emphasizes skills in developing performance objectives and in organizing and writing proposals for program development, including management plans, evaluation plans, and budget development. Provides an opportunity to participate in the systems design for the delivery of a proposed human service or educational program.

Prerequisite: Junior standing and two courses in ED, HI, or HRD.

HRD 467 Workshop (2 or 4 credits)

Provides an opportunity for community agency personnel and students engaged in preparation for applied human resources development work to develop various aspects of human services programs and practices. Sections are offered as needed for topics or areas of emphasis which meet the current objectives and/or requests of agency or business and industry employers and directors of training programs for personnel skilled in human resources development. Course may be taken more than once for a maximum of 8 credits.

Prerequisite: Course work or experience in the workshop topic.

HRD 469 Seminar (2 or 4 credits)

The course is conducted in traditional seminar fashion. The scope is predefined and based upon a broad topic in the human resources development field. Class members select areas for reading and research and share in contributing their findings to the group. Visiting consultants as well as the instructor provide direction and relevant content. Course may be taken more than once for a maximum of 8 credits.

Prerequisite: Course work or experience in the seminar topic.

HRD 490 Internship in Human Resources Development (8 or 12 credits)

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 HI and/or HRD courses and permission of instructor.

HEALTH-PHYSICAL EDUCATION, DANCE, RECREATION AND SPORTS SKILLS AND THEORIES

The Department of Physical Education and Athletics offers a wide variety of activity and theory courses in health-physical education, dance, recreation and sports for credit. Eight (8) credit hours may be applied to the graduation requirements of the University. The various term schedules will offer a selection from the list of courses following: (For further information and requirements for specialized areas please contact the department in the Sports and Recreation Building, 377-3190).

PE 101 Physical Conditioning and Special Activity (2 credits)

The principles and the participation in warmup exercises, circuit-interval-weight

conditioning with opportunity for participation in individual-dual-team sports activities.

PE 111 Swimming and Diving (2 credits)

The principles, safety precautions, and procedures and the participation in the basic, intermediate and advanced swimming and diving skills.

PE 113 Skin and Scuba Diving (2 credits)

The principles, safety precautions, and procedures and the participation in basic and advanced skills in skin and scuba diving.

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, supplies, equipment, 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 202 Introduction, History and Orientation to Health-Physical Education and Allied Fields (2 credits)

To provide opportunity for knowledge, interpretation, and understanding of health education, physical education, dance, intramural sports, extramural sports, sports clubs, school and community recreation, and interscholastic competitive athletics for boys and girls in the total school program.

PE 207 American Red Cross Advanced First Aid and Prevention and Care of Activity-Oriented Injuries (4 credits)

To provide opportunities for knowledge, interpretation, understanding, and practice in the immediate and temporary care given to persons, victims of accident or sudden illness until the services of a physician can be obtained. Further to aid in approaches and procedures of "safety proofing" facilities, equipment, supplies and participants in Physical Education, Recreation, and Athletic Activities and the coordination with the Medical Profession in the care of the injured or sick participants.

PE 211 American Red Cross Senior Life-saving and Water Safety Instructor Course. (4 credits)

Principles and procedures for swimming, lifesaving and water safety with successful participation, including physical skills examination and written examination. ARC Certification upon successful completion of course.

PE 212 Teaching and Coaching Competitive-Aquatic Activities-Water Safety Instructors and/or Lifesaving (4 credits)

Philosophy, theory and instruction in basic and advanced skills of swimming and diving, synchronized swimming, and water games, with emphasis on conditioning, training, scheduling and pertinent necessities.

PE 221 Teaching and Coaching Baseball (2 credits)

Philosophy, theory and practice in the fundamental skills of the game, conditioning, training, offensive and defensive strategy, and setting up practice schedules and drills.

PE 223 Teaching and Coaching Basketball (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 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

PE 495 Practicum-Seminar in Physical Education and Allied Areas (4 credits)

Opportunity for individual students to delve into philosophy, theory and practice in areas of concern with observation and possible participation in the area of concern and the sharing of the experience with the group on a regular basis.

NOTE: BIO 104 Biology of the Human (4 credits) is one of the necessary CORE COURSES.

THE GRADUATE PROGRAMS

The School of Education offers programs leading to the Master of Arts in Teaching degree in four areas: Early Childhood Education, Elementary Education, Reading and Language Arts Education, and Special Education. The Master of Arts degree is offered in Guidance and Counseling. 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 available in English and Mathematics. (Students interested in these programs should consult the announcements of the College of Arts and Sciences.)

For students who are not immediately interested in enrolling in a degree program but wish to meet the State of Michigan's requirements for the Continuing Certificate, eighteen-hour planned programs are also available. (See the School of Education Graduate Bulletin for further details and descriptions of programs.)

OVERVIEW OF THE DEGREE OF MASTER OF ARTS IN TEACHING: Early Childhood Education

The master's program in Early Childhood Education is designed to train teachers to work with young children, ages 0-9. It combines theoretical knowledge with observation and participation in clinical, community and school practicum settings.

The academic program stresses the linguistic and psychological aspects of children's language development; the sociological and anthropological foundations of child development; and the medical and psychological bases of physiological and mental growth.

The total program is based upon the premise that a strong academic program must be balanced with an equally strong practicum emphasis. Practicum experiences are available in a variety of settings including hospitals, nursery schools, day care centers, kindergartens and primary grade classrooms, predominantly in urban areas.

Elementary Education

The Master's Program in Elementary Education has been designed for the benefit of professional elementary classroom teachers. The program allows for a broad general coverage of courses to strengthen the knowledge and skills needed by a classroom teacher. Within a general framework, *The student designs a program for his/her own personal needs.*

Only two courses are required in the Elementary Education Master's program. Education 510: *Introductory Seminar in Elementary Education* is designed to assist one in developing basic understanding and skills which facilitate learning in the remainder of the program. Education 699. *Master's Project or Thesis* is normally taken near the completion of the program. Knowledge and skills gained during one's course of study are applied in solving a problem of individual concern.

The remaining seven (7) courses may be chosen by the student (with advisor approval) to personalize his/her program. Courses must include four (4) general categories within the offerings of the School of Education.

Reading/Language Arts Education

The Master's Program in Reading/Language Arts Education is one of the broadest and most diversified in the nation. The majority of the twelve hundred students currently enrolled in the program are teachers who intend to remain with their classroom responsibilities. Their reasons for enrolling in the program vary, but a major one lies in the fact that relatively few other fields of study are so directly practical and relevant to their daily teaching concerns.

Although the program is classroom-centered, students who choose to do so may prepare themselves for other positions of responsibility. A number of graduates are now functioning as reading specialists, consultants, college teachers of reading, special project directors, supervisors, and principals.

The base sequence consists of twenty-four (24) semester hours which are required of all Master's degree candidates. It is designed to meet standards provided for reading specialists by the International Reading Association and assists one in attaining basic competencies in three areas. Also, in conjunction with the Special Education Area there is a forty-four (44) credit hour M.A.T. Program which includes a Learning Disability endorsement.

Special Education

The Master's Program in Special Education provides an opportunity for students to design a balanced program consistent with their educational background and career goals. These individualized programs assist one in developing the necessary skills required to meet professional demands within the special classroom or resource room, as well as fulfilling the need for regular classroom teachers who can better meet the needs of children who have moderate learning and/or behavior problems.

As a part of the thirty-six (36) hour program leading to the Master of Arts in Teaching—Special Education, certification is recommended in the area of teaching emotionally disturbed children or in the area of teaching learning disabled children.

OVERVIEW OF THE DEGREE OF MASTER OF ARTS: Guidance and Counseling

The Master's Program in Guidance and Counseling is dedicated to the education of effective persons to work in helping roles with children, youth, parents and other adults in school and community settings. The program emphasizes techniques for facilitating the development of human beings through all the developmental phases of life. Methodologies for personalizing and humanizing life processes and experiences are stressed. Two areas of emphasis are available: *Elementary and Middle School Counseling* and *Counseling Youth and Adults*.

The program requires a minimum of thirty-six semester hours and must include course work in seven areas: (a) basic guidance and human services, (b) group procedures, (c) assessment and evaluation, (d) techniques of counseling, (e) guidance information and career development, (f) consultation, and (g) practical application of counseling and guidance in a supervised field setting. The balance of the program may include electives in economics, education, psychology, or sociology. Persons who complete the program, and who hold a valid teaching certificate, may be recommended for endorsement as school counselors.

GRADUATE COURSE OFFERINGS

ED 500 Foundations of Reading Instruction (4 credits)

Prerequisite: Admission to graduate program.

ED 501 Introduction to the Education of Exceptional Children (4 credits)

Prerequisite: Graduate standing.

ED 502 Skills and Competencies for Teachers of Exceptional Children (4 credits)
Prerequisite: ED 501

ED 503 The Educational Philosophy of John Dewey (4 credits)

Prerequisite: For graduate students, admission to course in any graduate program; for under-graduate students, PHL 101 or ED 244 or permission of instructor.

ED 504 Literary Portrayals of Educational Encounters (4 credits)

Prerequisite: Graduate standing.
(MTH 505—See page ??? in catalog)
(SCI 505—See page ??? in catalog)

ED 509 The School and the Disadvantaged Child (2 or 4 credits)

Prerequisite: Permission of instructor.

ED 510 Introductory Seminar in Elementary Education (4 credits)

(NOTE: Required of all students in the MAT Elementary Education Program. Should be taken within the first 8 hours of course work.)

ED 511 Interaction Analysis (4 credits)

Prerequisite: Admission to a graduate program or permission of instructor.

ED 512 Curriculum Development in the Public School. (4 credits)

(MTH 513—See page ??? in catalog)

ED 513 The Organization of the Elementary School (4 credits)**ED 514 Classroom Diagnosis and Correction (4 credits)****ED 515 The Modern British Primary School (4 credits)****ED 521 Special Education in the Regular Classroom (4 credits)****ED 522 Behavior Modification Techniques for Classroom Management (4 credits)**

Prerequisite: Bachelor's degree and current teaching experience.

ED 523 Educational Procedures for Children with Learning Disabilities (4 credits)

Prerequisite: One year's teaching experience.

ED 524 Perception in the School Setting (4 credits)

Prerequisite: Graduate standing.

ED 527 Problems in Educating Mentally Handicapped Children (4 credits)

Prerequisite: Graduate standing.

- ED 554 Interaction Laboratory for Teacher Development** (4 credits)
Prerequisite: ED 245.
- ED 555 Practicum for Teachers of the Urban-Rural Disadvantaged** (4 credits)
Prerequisite: Open to graduate students enrolled in special projects.
- ED 560 Special Problems in Guidance and Personnel Work** (2, 4, 6 or 8 credits)
Prerequisite: Permission of instructor.
- ED 561 Guidance and Counseling for Children** (4 credits)
- ED 562 Assessment of Children** (4 credits)
- ED 563 Group Procedures in Guidance** (4 credits)
Prerequisite: Permission of instructor
- ED 564 Delivery of Human Services** (4 credits)
- ED 567 Workshop in Guidance and Personnel Services** (2, 4, 6 or 8 credits)
Prerequisite: Permission of instructor.
- ED 563 Group Procedures in Guidance for Children** (4 credits)
- ED 571 Children's Books in the Elementary School Curriculum** (4 credits)
Prerequisite: ED 332 or ED 570 or permission of instructor.
- ED 572 Storytelling and Creative Dramatics** (4 credits)
Prerequisite: ED 332 or ED 570 or permission of instructor.
- ED 574 Literature for the young child** (4 credits)
Prerequisite: ED 332 or ED 570 or permission of instructor.
- ED 581 Teaching about Black Africa in the Public Schools** (4 credits)
Prerequisite: Admission to a graduate program or permission of instructor.
- ED 582 Play Productions for Secondary School Teachers** (4 credits)
- ED 583 The Middle School** (2 or 4 credits)
Prerequisite: ED 512.
- ED 584 The Open Classroom** (2 or 4 credits)
- ED 585 The Law and Public Education** (4 credits)
Prerequisite: Permission of instructor.

- ED 586 Education of the Spanish-Speaking of the United States** (4 credits)
(Same as ED 823)
Prerequisite: Admission to the graduate program.
- ED 587 Social Studies in the Elementary School (SS 570)** (4 credits)
Prerequisite: ED 245 and acceptance into a graduate or certification program.
- ED 588 Supervisory Skills for Cooperating Teachers** (4 credits)
Prerequisite: Graduate standing.
- ED 589 Unified Science and Mathematics** (2 or 4 credits)
Prerequisite: Admission into graduate program.
- ED 590 Special Problems in Education** (2, 4, 6 or 8 credits)
Prerequisite: Admission to course in any graduate program or permission of department.
- ED 591 Ecology of the Classroom** (4 credits)
Prerequisite: Permission of instructor of acceptance into any graduate program.
- ED 592 Research Techniques in Education** (4 credits)
Prerequisite: Acceptance in a master's program in Education or permission of instructor.
- ED 597 Oakland University/Greenfield Village Practicum in the Social Studies** (4 credits)
Prerequisite: ED 587 (SS 570) or permission of instructor.
- ED 601 History of Education** (4 credits)
Prerequisite: Admission to any graduate program.
- ED 602 Philosophy of Education** (4 credits)
Prerequisite: Admission to graduate program.
- ED 603 Cross-Cultural Studies in Education** (4 credits)
Prerequisite: Admission to graduate program.
- ED 604 Sociology of Education** (4 credits)
Prerequisite: Admission to graduate program.
- ED 611 Problems in Elementary Education** (4 or 8 credits)
Prerequisite: Admission to course in a graduate program in elementary education or in reading instruction.
- ED 612 Curriculum Studies** (4 credits)
Prerequisite: Admission to course in a graduate program in elementary education or in reading instruction.
- ED 620 Social Deviancy in Special and Regular Education** (4 credits)
Prerequisite: Admission to graduate program in Special Education or permission of instructor.
- ED 621 Management and Curriculum for Emotionally Disturbed Children** (4 credits)
Prerequisite: ED 521 and one graduate course in psychology.



SCHOOL OF ENGINEERING

OFFICE OF THE DEAN:

Paul R. Paslay, Dean

Keith R. Kleckner, Assistant Dean for Graduate Programs

Howard R. Witt, Assistant Dean for Undergraduate Programs

Kenneth A. Meade, Assistant to the Dean of Engineering

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ADJUNCT PROFESSORS: John G. Gievers; Ralph M. Grant; Kenneth A. Meade; Keeve M. Siegel

BOARD OF VISITORS

The Board of Visitors for the School of Engineering are leaders of industry in southeast Michigan. They assist the School of Engineering in developing educational and research programs 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 Laboratories, General Motors Corporation

Dr. Robert R. Johnson, Vice President of Engineering, Burroughs Corporation

- Mr. H. L. Misch, Vice President, Engineering Staff, Ford Motor Company
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Abrasive, Inc.
Mr. F. J. Winchell, Vice President of Engineering Staff, General Motors
Corporation

Undergraduate Programs

Two easily distinguishable activities are included in the undergraduate School of Engineering. The first activity is general engineering while the second is computer and information science. Students may take a major in either of these programs. In the first case they receive the degree of Bachelor of Science with a major in Engineering and in the second case the degree of Bachelor of Science with a major in Computer and Information Science. Although these are the only two baccalaureate programs offered by the School of Engineering there are several variations and alternatives described below in detail. A bit of clarification may help the reader better understand these variations and alternatives before the details are given.

There are Concentrations available to Engineering students *at their option*. Students who pursue these concentrations receive the Bachelor of Science degree with a major in Engineering, but, their transcript also explicitly indicates that the degree was awarded "with a Concentration in Electronics," for example. Some of the concentrations available to engineering majors are offered by the School of Engineering while others are not. The current areas of concentrations offered for engineering majors by the School of Engineering are Electronics, Systems Engineering, Mechanical and Thermal Sciences, and Computer and Information Science. The concentrations for Engineering majors offered outside the School of Engineering are in Economics, Management, and premedical studies.

A number of concentrations and cognates are being developed for students majoring in Computer and Information Science. Details will be made available as they receive approval.

For students who do not wish to follow the Engineering or Computer and Information Sciences programs as majors, the School of Engineering offers two concentrations for non-majors. The first of these is in Computer and Information Science while the second is in Public and Societal Systems.

Finally several options are available for engineering majors. These options, which are given in the section on Career Preparation in Engineering, are not officially recorded on a student's transcript. They are listed to indicate courses which might be of

interest to students with specific career plans. There are enough electives available to accommodate the options. Students are encouraged to develop an educational program in engineering that complements the central general engineering program.

Writing Proficiency

All Oakland University students 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 counseled 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 requirements students with a major in Engineering or in Computer and Information Science must:

1. Complete 24 credit hours in General Education courses. Up to eight hours in English composition courses may be presented as part of the 24 credits in General Education.
2. Complete at least four credit hours in three of the four designated field groups, and at least eight credit hours in one of the field groups. The field groups are Arts, Letters, Social Science and Area Studies. Academic units sponsoring the field groups are:

Arts: Art, Music, Theater

Letters: Classics (literature courses in translation or in the foreign language), English, History, Modern Languages and Literatures, Philosophy and Religion

Social Sciences: Economics, Economics and Management, Political Science, Psychology, Sociology/Anthropology, Speech Communication. The specific courses ENV 151, ED 244, 245, and SS 100 are included in this category.

Area Studies: Interdepartmental Committee on Area Studies (African Studies, East Asian Studies, South Asian Studies, Latin American Studies, Slavic Studies)

It is also possible 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.

Proficiency testing

The term "complete" as used in stating 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 Engineering. "Petition of Exception" forms for Engineering students and Computer and Information Science students may be obtained from the office of the Dean of the School of Engineering.

UNDERGRADUATE CURRICULUM IN ENGINEERING

The engineering program at Oakland University is of an interdisciplinary form and is designed to educate students to plan a successful career in 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 are organized around specialties such as civil, electrical, mechanical and chemical engineering. These departments have 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.

The Oakland engineering 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. In addition 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 the engineering approach to problem solving 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 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 engineering (senior 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, 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 in-depth study in areas of particular interest. By arrangement with other departments engineering students may also study advanced biology and 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 School 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 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 (one or two courses). Other credits presented in mathematics, science, or engineering will be evaluated with reference to courses required for gradua-

tion 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. 364, 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 required engineering courses.
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 (a list of approved directed electives is given below) distributed over three groups:

Group I—At least 12 credit hours in 400 level engineering courses chosen to meet career objectives.

Group II—At least 4 credit hours chosen from the approved list of courses in Life, Environmental and Social Sciences.

Group III—At least 4 credit hours chosen from the approved list of courses in Mathematics and Physical Sciences.

The remaining 4 credit hours may be chosen from any of the above three groups.

(b) 8 credit hours of free electives.

10. Have attained a cumulative grade point average of at least 2.0 in the engineering core courses and the 400 level directed 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.

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 numbered 181 and higher
 ECN 216, 217 and Economics courses numbered 300 and higher
 Management courses numbered 300 and higher
 Political Science courses numbered 241 and higher
 Psychology courses numbered 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, MTH 263
 and mathematics courses numbered 325 and higher
 PHY 271 and 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 in the junior year.

Engineering students interested in a medical or dental career should complete the concentration in premedical studies. Further details are given under interdepartmental programs on page 272.

Listed here are some of the typical programs available to engineering students.

Computer and information science

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 (EGR 480), Hybrid Computation and Simulation (EGR 481), Switching Theory (EGR 485) and Design of Digital Systems (EGR 488). A concentration in Computer and Information Science is available for engineering students. Requirements are completion of CIS 181, CIS 290, EGR 488 and two courses from Group A and one additional course from Group A or Group B.

Group A: EGR 426, EGR 480, EGR 485, an approved EGR 409 project

Group B: CIS 382, CIS 385

Further details are on this concentration are presented on p. 380.

Electronics and electrical engineering

The student preparing for a career in electronics or electrical engineering should make advanced course selections from among Analog, Digital and Optical Filtering (EGR 425), Advanced Electronics (EGR 426), Communication Systems (EGR 427), Automatic Control Systems (EGR 431), Electric and Magnetic Fields (EGR 445), and Electronic Devices (EGR 473). A concentration in Electronics is offered. It requires completion of EGR 425, EGR 426, EGR 473, and one of EGR 427, EGR 431, EGR 445, EGR 488 or an approved EGR 409 project. Additional information is provided on p. 382.

Systems engineering

As preparation for a career in systems engineering the student should elect advanced courses such as Analog, Digital and Optical Filtering (EGR 425), Automatic Control Systems (EGR 431), Analysis of Nonlinear Systems (EGR 432), Production Systems (EGR 436), Fluid and Thermal Systems (EGR 453), Applied Numerical Methods (EGR 480), and Design of Digital Systems (EGR 488). A concentration in systems engineering may be earned by completing EGR 431, EGR 432, EGR 436, and one of EGR 425, EGR 450, EGR 453, EGR 480, EGR 481, EGR 488 or an approved EGR 409 project. Further details of the concentration are given on p. 384.

Fluid and thermal sciences and mechanical engineering

Engineers working in the fluid and thermal sciences area of mechanical engineering 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 area of engineering should consider electing Thermal Energy Transport (EGR 448), Fluid Transport (EGR 449), and Fluid and Thermal Systems (EGR 453). Further work in mechanical engineering is available through Energy Conversion (EGR 454), Advanced Mechanics of Materials (EGR 461) and Mechanical Properties of Materials (EGR 462). A concentration in Mechanical and Thermal Sciences may be earned by completing 16 credits which must be chosen from the following:

- (a) At least 12 credit hours from among EGR 448, EGR 449, EGR 453, EGR 454, EGR 461, EGR 462 and approved EGR 405 and EGR 409 courses.
- (b) Not more than 4 credit hours chosen from EGR 431 and EGR 480.

Further details on the concentration are given on p. 382.

Engineering management

Engineering students in technical sales and management are advised to choose Production Systems (EGR 436) among their advanced electives. They may obtain further work in economics or management by pursuing either the Concentration in Economics or the Concentration in Management, which are offered by the School of Economics and Management. These concentrations are described further on p. 381. By careful selection of general education courses, free electives, and directed electives in

the Life, Environmental and Social Science category engineering students may complete one of these concentrations within the regular framework of the engineering program.

Other fields

Students with other career interests may augment their general engineering program with appropriate electives. For example, an interest in environmental engineering may be emphasized by pursuing the concentration in Environmental Studies offered by the College of Arts and Sciences. Bio-engineering and engineering chemistry may be emphasized through cooperative ventures with the Department of Biological Science or the Department of Chemistry. Since the prerequisites and electives appropriate to these areas vary widely, interested students are urged to consult their advisers early in their program to plan their course selection. Prospective students 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	Semester 2
English Composition or Distribution Requirement	English Composition or Distribution Requirement
EGR 172 or EGR 101*	EGR 101 or EGR 172*
MTH 154 or 134	MTH 155 or 154
CHM 104, 114, or 124	CIS 180

Semester 3
 Distribution Requirement
 EGR 215
 MTH 254 or 155
 PHY 151

Semester 4
 Distribution Requirement
 EGR 216 (2 credits)
 MTH 255 or 254
 PHY152
 PHY 158 (2 credits)

Semester 5
 Distribution Requirement
 EGR 225
 EGR 241
 MTH 255 or Free Elective**

Semester 6
 Distribution Requirement
 EGR 326
 EGR 345
 Directed Elective***

Semester 7
 EGR 344
 EGR 361
 Directed Elective***
 Directed Elective***

Semester 8
 Directed Elective***
 Directed 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.

*Students taking MTH 134 in Semester 1 should take EGR 101 in Semester 1 and EGR 172 in Semester 2. Students taking MTH 154 in Semester 1 should take EGR 172 in Semester 1 and EGR 101 in Semester 2.

**Free electives may be chosen from any credit courses offered by the university.

***Directed Electives to meet Part 9 of the degree requirements as given on p. 363. Courses permitted in Group II and Group III of Directed Electives are listed on p. 364.

REGULATIONS GOVERNING COURSES

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, 111 and 263, 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 Summer Session.

EGR 101 Introduction to Engineering Design (Core) (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 and Winter Semesters.

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.

EGR 172 Properties of Materials (Core) (4 credits)

The atomic, molecular, and crystalline structure of solids, including a description of x-ray analysis, metallography, and other methods for determining structure; correlation of structure with the electric, magnetic, and mechanical properties of solids. Offered in the Fall and Winter Semesters.

EGR 205 Engineering Topics (4 credits)

Introductory and intermediate study in special areas.

(a) On an individual basis. In this self-study format the student must obtain, prior to registration, the approval of the instructor who will supervise the work.

(b) In a scheduled class format. Courses in this format are offered only as the occasion demands.

May be taken more than once. Offered in the Fall and Winter Semesters and in the Spring and Summer Sessions.

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 prior to registration in the course. May be taken more than once. Offered in the Fall and Winter Semesters and in the Spring and Summer Sessions.

EGR 215 Statics (Core) (4 credits)

A vector treatment of mechanics which includes particle statics, equilibrium of rigid bodies, structures, centroids, friction, virtual work and moments of inertia. 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 Linear Systems (Core) (4 credits)

A unified approach for steady-state and transient analysis of electrical, mechanical, fluid, and thermal lumped-parameter linear systems. Network elements and formulation procedures for differential equations. Analogies, phasors, impedance concept, natural and forced behavior, resonance, complex frequency plane, Laplace transforms, frequency response, network theorems. Use of analog and digital computers to solve differential equations for these systems. Offered in the Fall and Winter Semesters.
Prerequisites: EGR 216, PHY 152, and MTH 155.

EGR 241 Thermodynamics (Core) (4 credits)

Introduction to fundamental concepts, thermal energy, thermodynamic properties and equilibrium, basic physical laws of thermodynamics; entropy and its consequences, reversible energy transfers in both open and closed systems; application of thermodynamics to systems involving energy conversion and transport. Offered in the Fall and Winter Semesters.
Prerequisites: CHM 104, 114 or 124
Prerequisite or corequisite: MTH 254

EGR 263 Modern Architecture and Urban Design (4 credits)

A study of architecture from the mid-nineteenth century to the present day. Additional topics include the importance of engineering, the development of structural materials, and development of city planning. Identical with AH 263.

EGR 326 Electronic Circuit Design (Core) (4 credits)

Analysis and design of solid-state electronic circuits. Non-linear dissipative characteristics, large-signal analysis of amplifiers, small-signal analysis of active two ports, voltage amplification, transducers, feedback. Offered in the Fall and Winter Semesters.
Prerequisite: EGR 225
Prerequisite or corequisite: MTH 254

EGR 344 Fields and Waves (Core) (4 credits)

Introduction to distributed parameter systems and wave phenomena; strings, 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, MTH 254

EGR 345 Introduction to Fluid and Thermal Energy Transport (Core) (4 credits)

Fundamentals of fluid mechanics, properties of fluids, conservation principles; viscous and inviscid flow; laminar and turbulent flow; boundary layer theory; basic concepts of heat transfer; fundamental modes: conduction, convection, and thermal radiation; applications to problems of engineering interest. Offered in the Fall and Winter Semesters.
Prerequisite: EGR 241

EGR 361 Mechanics of Materials (Core) (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, photoelasticity, 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.

- (a) On an individual basis. In this self-study format the student must obtain, prior to registration, the approval of the instructor who will supervise the work.
- (b) In a scheduled class format. Courses in this format are offered only as the occasion demands.

May be taken more than once. Offered in the Fall and Winter Semesters and in the Spring and Summer Sessions.

EGR 409 Senior Engineering Project (2, 4, 6, or 8 credits)

Independent work on advanced laboratory projects; topic to be chosen by the student in consultation with an instructor prior to registration in the course. 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 Analog, Digital and Optical Filtering (4 credits)

Analog, digital and optical filtering techniques for one and two dimensional data studied from a common theoretical viewpoint. Lowpass, highpass, and bandpass filtering in the time and spatial domains. Continuous and discrete Fourier transforms. Offered in the Fall semester.

Prerequisites: EGR 326, EGR 344

EGR 426 Advanced Electronics (4 credits)

Fundamentals of linear and diode wave-shaping networks. Design and analysis of electronic switching circuits with emphasis on the design of digital circuits. Included are multivibrators and logic circuits. Additional topics include resonant-load amplifiers, frequency response and impedance matching. Offered in the Fall 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 processes, 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.

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 Fall semester.

Prerequisites: MTH 255 and EGR 326

EGR 432 Analysis of Nonlinear Systems (4 credits)

Analysis of nonlinear physical systems with engineering applications. Phase-plane analysis for autonomous systems; singular points, characterization of equilibrium points. Stability analysis via theorems of Liapunov, existence of limit cycles, harmonic analysis and describing functions. Offered in the Fall semester.

Prerequisite: EGR 225

EGR 436 Production Systems (4 credits)

This course includes quantitative methods for analyzing general types of systems. The focus is on production or manufacturing systems. Topics include basic economics, production scheduling, inventory control, resource allocation, congestive aspects of systems, quality control, and tolerancing. Offered in the Winter semester.

Prerequisite: MTH 254

EGR 445 Electric and Magnetic Fields (4 credits)

Introduction to the fundamental concepts of electric and magnetic fields. Fundamental laws, basic postulates, Maxwell's equations. Electrostatics, magnetic fields of steady currents, time varying fields, waves, transmission lines, reflection and refraction at interfaces, guided waves, radiation and elementary radiators. Use of computers for solution of practical problems.

Prerequisite: EGR 344

EGR 448 Thermal Energy Transport (4 credits)

A continued study of the basic concepts, properties, and descriptions of the three fundamental modes of heat transfer (conduction, convection, and thermal radiation); theoretical, numerical, and analogical methods of analysis of steady, transient, single- and multi-dimensional problems; with laboratory. Offered in the Winter semester.

Prerequisites: EGR 345 and MTH 255; or consent of the instructor.

EGR 449 Fluid Transport (4 credits)

A continued study of the fundamentals of fluid mechanics and their applications; potential flow of inviscid fluids, laminar and turbulent boundary layer theory, compressible flow; similarity, modeling, and dimensional analysis. Offered in the Fall semester.

Prerequisites: EGR 345 and MTH 255; or consent of the instructor.

EGR 450 Coherent Optics (4 credits)

Current developments in the field of coherent optics; two-dimensional Fourier analysis; scalar diffraction theory; Fourier transforming and imaging properties of lenses; interference and partial coherence; recent advances in holography and optical data processing.

Prerequisite: EGR 344

EGR 453 Fluid and Thermal Systems (4 credits)

A study of various systems involving fluid and thermal phenomena, including systems associated with conventional and unconventional energy conversion, fluid and thermal energy transport, environmental pollution and its abatement, and associated measurement and control devices. Emphasis is placed on systematically applying basic integral, differential, and lumped parameter modeling techniques as a means of formulating theoretical descriptions of such systems for the purposes of analysis, design, and optimization. The course is structured to bridge the boundaries of conventional engineering disciplines. Offered in the

Winter semester.

Prerequisites: EGR 241, EGR 345, or equivalent introductory courses in Classical Thermodynamics, Fluid Mechanics, and Heat Transfer.

EGR 454 Energy Conversion (4 credits)

A study of various processes and systems associated with conventional and unconventional energy conversion; fuel processing, chemical to thermal conversions, nuclear to thermal conversions, thermal to mechanical conversions, solar and geothermal conversion processes, thermoelectric devices, fuel cells, etc.

Prerequisites: EGR 241, EGR 345 or equivalent introductory courses in Classical Thermodynamics, Fluid Mechanics, and Heat Transfer

EGR 461 Advanced Mechanics of Materials (4 credits)

Advanced topics in mechanics, such as beams on elastic foundations, curved and composite beams, theory of plates, membrane theory of shells, torsion of non-circular cross-sections, thick-wall cylinders, contact stresses, stress concentrations, energy methods and introduction to stability. Offered in the Fall semester.

Prerequisite: EGR 361

EGR 462 Mechanical Properties of Materials (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 473 Electronic Devices (4 credits)

A study of the principles of operation of various electronic devices including passive circuit elements, vacuum devices, gaseous devices, semiconductor devices and quantum electronic devices. Laboratory experiments include the measurement of the operating characteristics of such devices as vacuum tube triodes, voltage regulator tubes, semiconductor diodes, photoconductivity, junction transistors, field effect transistors and lasers. Offered in the Winter semester.

Prerequisites: EGR 326, EGR 344

EGR 480 Applied Numerical Methods (4 credits)

The application of digital computer numerical methods to engineering problems. Classical methods for solving general algebraic equations, polynomial factoring, Runge-Kutta and predictor corrector methods for solution of ordinary differential equations and matrix computer methods. Also included are various contemporary methods such as Laplace transform inversion, Latin Squares techniques, partial differential equations and the Fast Fourier Transform. Emphasis is placed on student development of general purpose subroutines for use in engineering applications. Identical with CIS 480. Offered in the Winter Semester.

Prerequisites: EGR 225, CIS 180.

EGR 481 Hybrid Computation and Simulation (4 credits)

An introduction to the application of hybrid and iterative analog computing techniques to large scale engineering problems. Sampling, split simulation, nonlinear function generation, time delay generation, parameter optimization, partial differential equations, and error analysis of hybrid computing systems.

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

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	Applied Numerical Methods	(4 credits)
EGR 581	Hybrid Computation and Simulation	(4 credits)
EGR 585	Switching Theory	(4 credits)
EGR 586	Computer Architecture	(4 credits)
EGR 609	Doctoral Thesis Research (2, 4, 6, 8, 10 or 12 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 a broad educational experience in addition to the requisite technological training for persons working in the computer field. 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.

The first two years of the program were first offered in 1973-1974. 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 specified on p. 365.
7. Have completed at least 36 credits in Computer and Information Science courses including CIS 180, 181, 290, 382 and 385. The remaining 16 credits are to be chosen by the student subject to the written approval of his or her CIS advisor.
8. Have completed one of the following two mathematics sequences:
 - (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 statistics in the student's cognate area.
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 3

CIS 290
 MTH 254 or Elective
 Statistics
 Distribution Requirement

Semester 5

CIS 382
 Cognate Elective
 Elective
 Distribution Requirement

Semester 7

400 Level CIS course
 (to be specified)
 Cognate Elective
 Elective
 Elective

Semester 2

CIS 181
 MTH 155 or MTH 122
 Science
 English Composition or
 Distribution Requirement

Semester 4

CIS 220*
 MTH 263
 Cognate Elective
 Distribution Requirement

Semester 6

CIS 385
 Cognate Elective
 Elective
 Distribution Requirement

Semester 8

CIS Elective

 CIS Elective
 Cognate Elective

*or other 200 level CIS elective

Undergraduate Course Offerings in Computer and Information Science

CIS 180 Introduction to Computer Science I (4 credits)

An introduction to digital computers and digital computation; problem solving and elementary applications; algorithmic programming languages such as BASIC and FORTRAN. Offered in the Fall and Winter semesters and in the Spring Session. This course presumes a good background in high school mathematics. Students lacking such background or interest in mathematics should enroll in CIS 182. Credit will not be granted for both CIS 180 and CIS 182.

CIS 181 Introduction to Computer Science II (4 credits)

An introduction to numerical methods; data structures and non-numerical applications; another important algorithmic language such as ALGOL. Offered in the Fall and Winter semesters.

Prerequisite: CIS 180

Corequisite: MTH 121 or MTH 154

CIS 182-183 Introduction to Computer Programming (4 credits each) and Non-numeric Applications

An introduction to computer programming and problem solving using algorithmic languages such as BASIC, FORTRAN, and ALGOL; elementary applications in statistics; non-numeric applications such as text processing and editing; textual analysis; information retrieval; applications in business, social sciences and the humanities. This course is designed for students with minimal background and/or interest in mathematics. Credit will not be granted for both CIS 180 and CIS 182. CIS 182 is offered in the Fall semester and the Summer session. CIS 183 is offered in the Winter semester.

Prerequisite: At least two years of high school mathematics are strongly recommended.

CIS 205 Special Topics in Computer and Information Science (4 credits)

Introductory and intermediate topics in special areas of Computer and Information Science.

- On an individual basis. In this self-study format the student must obtain, prior to registration, the approval of the instructor who will supervise the work.
- In a scheduled class format. Courses in this format are offered only as the occasion demands.

May be taken more than once. Offered in the Fall and Winter semesters and in the Spring and Summer sessions.

CIS 209 Project in Computer and Information Science (2 or 4 credits)

Independent project work in computer and information science. Topic to be chosen in advance of registration by the student in consultation with an instructor. May be taken more than once. Offered in the Fall and Winter semester and in the Spring and Summer sessions.

CIS 220 Management Information Systems (4 credits)

Introduction to the structure, design and use of large-scale, computer-based information systems in the business environment. Includes contemporary data base concepts utilizing mass storage devices. Emphasizes case studies involving the COBOL programming language. Offered in the Winter semester.

Prerequisite: CIS 180 or CIS 182 or knowledge of FORTRAN or equivalent programming language.

CIS 290 Introduction to Computer Organization and Assembly Programming (4 credits)

An introduction to the internal structure and operation of a digital computer. Hardware organization; machine language; instruction execution; digital arithmetic; addressing techniques; digital representations of data. Assembly language; macro and micro-programming; program segmentation and linkage. Several assembly programs will be written by the student. Offered in the Fall semester.

Prerequisite: CIS 180 or CIS 182 or working knowledge of a general purpose programming language.

CIS 382 Introduction to Information Structures (4 credits)

An introduction to information structures and their application in digital computer programming. Topics include linear lists, trees, lists and their various representations using sequential and linked allocation. Emphasis is placed on the application of these general concepts to particular programming problems in data manipulation, discrete simulation, and formal symbolic manipulation. Offered in the Fall semester.

Prerequisite: CIS 181 or CIS 183

CIS 385 Programming Languages (4 credits)

Formal definition of programming languages, including specification of syntax and semantics. Global properties of algorithmic languages including scope of definitions, storage allocation, statement grouping, internal and external program blocks, binding time of constituents, functions, subroutines, coroutines and tasks. Comparison of general purpose languages and categorization and comparison of the more important languages for list processing, string manipulation and simulation. Offered in the Winter semester.

Prerequisites: The three courses—CIS 180, 181, 290, or a working knowledge of two general purpose languages and an assembly language.

CIS 405 Advanced Special Topics in Computer and Information Science (4 credits)

Advanced study in special areas of Computer and Information Science.

- (a) On an individual basis. In this self-study format the student must obtain, prior to registration, the approval of the instructor who will supervise the work.
- (b) In a scheduled class format. Courses in this format are offered only as the occasion demands.

May be taken more than once. Offered in the Fall and Winter semesters and in the Spring and Summer sessions.

CIS 409 Directed Research in Computer and Information Science (2, 4, 6, or 8 credits)

Independent work on advanced projects. Topic to be chosen in advance of registration 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.

CIS 480 Applied Numerical Methods (4 credits)

The application of digital computer numerical methods to engineering problems. Classical methods for solving general algebraic equations, polynomial factoring, Runge-Kutta and predictor corrector methods for solution of ordinary differential equations and matrix computer methods. Also included are various contemporary methods such as Laplace transform inversion. Latin Squares techniques, partial differential equations and the Fast Fourier Transform. Emphasis is placed on student development of general purpose subroutines for use in engineering applications. Identical with EGR 480. Offered in the Winter Semester. Prerequisite: A basic knowledge of differential equations and a good working knowledge of a general purpose language such as FORTRAN.

cation of computers in management data processing.

To participate in the Concentration in Computer Science the student must have completed 32 credit hours, including at least one CIS course, and must have obtained the approval of an authorized adviser for the concentration. The student should apply to the committee for the concentration in Computer and Information Science by completing the application forms available in Room 248 Dodge Hall. The student's program will then be developed by joint action of the student, the departmental adviser and the committee.

A minimum of 16 credits in approved courses (including at least 8 credits in CIS courses) is required in the concentration, with the possibility of additional work being required in some instances.

The course offerings in Computer and Information Science are listed on p. 378 of this catalog.

For students with a major in engineering the minimum requirements for the concentration is completion of CIS 181, CIS 290, EGR 488 and two courses from Group A and one additional course from either Group A or Group B.

Group A: EGR 409*, EGR 426, EGR 480, EGR 485

Group B: CIS 382, 385

*The EGR 409 must be a four credit project which has been approved for the concentration by a member of the CIS Concentration Committee.

The four (4) credit elective requirement in Life, Environmental and Social Sciences will be waived for engineering students completing this concentration.

Concentrations in Economics and Management

Coordinator of the Concentrations: John E. Tower
(*Economics and Management*)

Concentrations in Economics and Management are available to students majoring in engineering through the School of Economics and Management.

Requirements for the concentrations are:

Economics Concentration: ECN 100 or ECN 169, ECN 210, ECN 216, ECN 217, 4 credit ECN elective (20 credits)

Management Concentration; ECN 100 or ECN 169, MGT 200-201, MGT 210-211, MGT 330, 4 credit ECN or MGT elective (22 credits)

Descriptions of the ECN and MGT courses are provided on p. 299 of this catalog.

Concentration in Electronics

Concentration Coordinator: H. R. Witt

Concentration Committee: D. H. Evans, D. R. Falkenburg, R. E. Haskell, J. C. Hill, K. R. Kleckner, T. H. Weng, H. R. Witt, and M. J. Wozny.

The electronics concentration has been designed to permit students to acquire greater depth in the area of circuit analysis and design. Minimal requirements for the concentration are a completion of:

- (a) EGR 425, EGR 426, EGR 473
- (b) and one of EGR 427, EGR 431, EGR 445, EGR 488 or EGR 409* (4 credits).

*Acceptance of EGR 409 is contingent upon the project being directed and approved for the concentration by a member of the Electronics Concentration Committee, or it must be approved by the Electronics Concentration Committee.

Requirement (b) may also be satisfied by any other 400-level course chosen by the student in consultation with his/her advisor and which has *prior* approval of the Electronics Concentration Committee.

Concentration in Mechanical and Thermal Sciences

Concentration Coordinator: H. R. Witt

Concentration Committee: R. H. Edgerton, J. G. Gievers, R. M. Grant, W. G. Hammerle, J. D. Hovanesian, K. A. Meade, P. R. Paslay, and G. L. Wedekind.

The Concentration in Mechanical and Thermal Sciences emphasizes the students' preparation for career opportunities in the areas of mechanics, materials, energy conversion and transport, fluid and thermal systems, and other aspects of mechanical engineering. Minimum requirements for the concentration are:

- (a) 16 credit hours taken from among EGR 405*, EGR 409*, EGR 448, EGR 449, EGR 453, EGR 454, EGR 461 and EGR 462, or
- (b) 12 credit hours taken from (a) and an additional four credit hours from EGR 431, EGR 480 or any other 400-level course selected by the student in consultation with his/her advisor and with *prior* approval of the mechanical and thermal science concentration committee.

*EGR 405 and EGR 409 courses must be directed and approved for the concentration by a member of the Concentration Committee or they must have prior approval of the Concentration Committee.

Concentration in Premedical Studies

Engineering students planning a career in the medical or den-

tal 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. 272.

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: Robert H. Edgerton (*Engineering*), Chairman; Donald R. Falkenburg (*Engineering*); William F. Moorhouse (*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' (multidisciplinary) 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 Public and Societal Systems (4 credits)

Methods of engineering and systems analysis are introduced as tools for solving public and societal problems. Typical examples in environment, health care delivery, law enforcement, recreation and education will be discussed. Emphasis is placed on the development of new strategies of change and the implementation of technological innovations.

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. Students must have their program of study approved by their 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.

Concentration in Systems Engineering

Concentration Coordinator: H. R. Witt

Concentration Committee: D. H. Evans, D. R. Falkenburg, R. E. Haskell, J. C. Hill, K. R. Kleckner, T. H. Weng, H. R. Witt and M. J. Wozny

The Concentration in Systems Engineering is directed towards students wishing further study in the analysis and control of a variety of industrial systems. Minimal requirements for the concentration are completion of

- (a) EGR 431, EGR 432, EGR 436 and
- (b) one of EGR 425, EGR 450, EGR 453, EGR 480, EGR 481, EGR 488 or EGR 409* (4 credits).

*Acceptance of EGR 409 is contingent upon the project being directed and approved for the concentration by a member of the Systems Concentration Committee or it must be approved by the Systems Concentration Committee.

Requirement (b) may also be satisfied by any other 400-level course chosen by the student in consultation with his/her adviser and which has **prior** approval of the Systems Concentration Committee.

SCHOOL OF PERFORMING ARTS

OFFICE OF THE DEAN:

Terence E. Kilburn, Associate Dean
Jerry L. Dahlmann, Administrative Director
Alfred Ruscio, Artistic Director
Thomas F. Kirchner, Administrative Assistant

ASSOCIATE PROFESSORS:

W. W. Kent; Terence Kilburn; Alfred Ruscio.

LECTURERS:

Alexander Gray; Elisabeth Orion; James R. Tompkins; Jessica Woods.

ARTIST-TEACHERS:

Kate Williamson; Istvan Danosi; Worth Mallory.

The School of Performing Arts is a unique training academy which provides the student-artist with contemporary and classical programs designed to challenge and enrich his talent. The goal of the school is to sharpen the creative instrument and prepare young artists to contribute to the professional performing arts. A distinguished faculty consisting of successful performers with a desire and ability to teach offers unusual advantages to students of exceptional talent and potential. Because some members of the faculty are artists-in-residence, permanent senior teacher-performers, or visiting artists of the Meadow Brook Theatre or the Meadow Brook Music Festival, the training of students is directly linked with the current practices and standards of the finest professional artists. The close relationship of the university's professional performing arts enterprises affords to the corresponding training courses of the school both models and masters.

All courses of the school embody the highest quality of training 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 professional 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 program. 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

ARTISTIC DIRECTOR:

Alfred Ruscio

FACULTY:

Alexander N. Gray; Terence E. Kilburn; 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 techniques 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 the 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 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 Theatre and Stratford Festival Theatre — and acting schools in North America. Many actors and directors of the Meadow Brook Theatre also give specialized classes 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 64 credits and who satisfactorily pass each semester's examinations are eligible for the Academy's Diploma of Dramatic Art. Outstanding students receive an Honors Diploma. 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.

Graduates have been invited to join the resident company of the Meadow Brook Theatre. Many others are now members of leading professional repertory companies across the nation, as well as appearing on television, in motion pictures, and on the Broadway stage.

All communications concerning the professional actor training program and 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. Matthews

The following academic units report directly to the Vice Provost:

Allport College

Evening Program

Department of Learning Skills

New-Charter College

Nursing Program

University Center for Community and Human
Development

University Courses

Graduate Study

ALLPORT COLLEGE

CHAIRMAN: Carl R. Vann

FACULTY: Phillip Singer; Elizabeth Titus; Carl R. Vann

ADJUNCT FACULTY: Enrique Araneta, Jr.; Elliot Beitner; Ralph Cash;
Daniel E. DeSole; George R. Gerber; Donald W. Loria; Melvyn
Rubenfire;

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. 262-280, and consult Prof. Singer.

The college uses various disciplines to relate: culture and personality; language, culture, and behavior; various modes of institutional behavior (e.g., political, bureaucratic, family, community, national, and international); science and technology and their impact on the human organism and organization; and their interconnections with institutional and scientific enterprises. Optional off-campus research and 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-101-102	Introduction to the behavioral sciences
AC-200	Health-Care dimensions
AC-250-251	Health-Medical Behavioral Sciences
AC-400	Field Practicum in Health-Medical Behavioral Sciences
AN-420 ⁴	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 p. 63) 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 (AC 101-102). This sequence satisfies the university distribution requirements in the social sciences. It also meets introductory course requirements in some social science departments.

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

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

DISTINCTIVE FEATURES OF THE ALLPORT COLLEGE PROGRAM

- This academic program is especially designed to provide the students with an experience relevant to the contemporary world.
- The use of small classes and tutorial experiences is coupled with large-group activities. Among the group events are traditional activities such as lectures and debates, as well as somewhat unusual cultural demonstrations and participatory activities.

- Students in Allport College are afforded opportunities for off-campus applied research.
- Upon completion of the Introduction to Behavioral Sciences (AC 101-102), students of the college may, with the cooperation of the academic departments involved, proceed directly to advanced course work.
- All incoming first year students may apply for admission to Allport College. The program of Allport College is also available for transfer and upper-division students. Students planning on majors with specially detailed requirements should consult with their advisers; the college is willing to discuss adjustments. Decisions on admission will be made prior to the Fall Semester. Enrollment is limited.
- Allport offers a unique faculty which blends the health professions with the social-behavioral sciences.

ALLPORT COLLEGE COURSE OFFERINGS

AC 101-102 Introduction to Behavioral Sciences (4 credits each)

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

AC 103-104 Preceptorial (4 credits each)

An exploration in depth of a significant issue in the behavioral sciences emphasizing group discussion and individual contributions.

AC 200 Health Care Dimension (4 credits)

A survey of the development, present status and dynamics of the American health care system emphasizing the structure of the various health professions and the problems, opportunities and constraints related to the various modes of health care delivery and professionalism. Role choice and role integration in the various health care fields will be studied. Also examined will be the relationships between the health care cultures and the personality and professional roles of health care practitioners. Additional topics will deal with issues involving hospitals, health care teams, planning, public policy, client relationships and factors affecting health.

AC 202 Research Techniques and Behavioral Sciences (4 credits)

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

AC 205 Evaluation of Music (4 credits)

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

Prerequisite: MUS 100

AC 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 in the Behavioral Sciences (4, 8, 12 or 16 credits)

A semester of independent study and applied research undertaken away from the University. Projects will be developed in cooperation with and supervised by allport faculty within the framework of methodology and explanation in the behavioral sciences.

Prerequisites: AC 101-102, or permission of instructor.

AC 400 Field Practicum in Health-Medical Behavioral Sciences (4, 8, 12 or 16 credits)

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 Behavioral Sciences (4 credits)**EVENING PROGRAM**

OFFICE OF THE DEAN: Billie C. DeMont, Dean; Ralph Schillace, Assistant Dean; Kevin T. Kenney, Administrative Assistant

Oakland University's degree granting Evening Program offered its first courses in the fall of 1972. Today, the Evening Program is a multi-faceted operation offering credit courses at various sites in Oakland, Macomb, and Wayne counties in addition to the university's main campus in Rochester.

The Evening Program consists of two main components:

Undergraduate degree programs and courses taught after 4:00 p.m. at the University's main campus in Rochester.

Undergraduate extension courses or credit institutes off the university main campus.

ADMISSION.

Procedures for admission to the evening program are identical to those for day or full time students. Prospective evening students should consult the requirements for admission presented elsewhere in the catalog, and see non-matriculating requirements for admission detailed below. Applications for undergraduate admission may be secured by calling the Office of Admissions, 377-3360.

NON-MATRICULATING ADMISSION.

Evening students should attempt to apply for admission at least two weeks before the beginning of classes. However, those students unable to secure regular admission before the date of registration of a given semester or session may register as a non-matriculating student. Non-matriculating students receive full credit for the courses in which they are enrolled while they are non-matriculating. During the semester in which a student is non-matriculating, the student should submit a completed application for admission along with the \$15.00 application fee. High school and college transfer records should accompany the application for regular admission.

No degree-seeking student should remain non-matriculating for more than one semester or session.

REGISTRATION.

Evening students may participate in preregistration and regular registration at the times announced for each semester. This information may be obtained by contacting the Evening Program office at 377-4010.

READMISSION.

Evening students who must withdraw from the university should formally contact the Office of Student Services, 154 North Foundation Hall. All students who withdraw in fall or winter must apply for readmission in the Office of Student Services. Application should be made prior to the date of registration in the term in which the student wishes to enroll.

FEES.

Tuition and miscellaneous fees for evening students taking on-campus campus courses are identical to the fee schedule published elsewhere in this catalog. Tuition for off-campus courses is computed at the rate of \$26.50 per credit hour.

ON-CAMPUS EVENING PROGRAMS.

The on-campus Evening Program permits students to earn undergraduate degrees exclusively at night in ten major areas:

- | | |
|---------------------------------|------------------------|
| —Economics | —Management |
| —Engineering | —Political Science |
| —English | —Psychology |
| —History | —Sociology |
| —Human Resources
Development | —Speech Communications |

Concentrations are offered in Journalism, Theater Arts and Social Justice and Corrections.

In addition, general education courses are offered in eighteen other program areas, they are:

- | | |
|---------------------------------------|---------------------|
| —Anthropology | —Human Interaction |
| —Art History | —Linguistics |
| —Biology | —Learning Skills |
| —Chemistry | —Mathematics |
| —Classics | —Music |
| —Computer and Information
Sciences | —Philosophy |
| —Education | —Physical Education |
| —Environmental Studies | —Religious Studies |

EVENING EXTENSION.

Oakland University has three regular undergraduate extension sites, they are:

PONTIAC

Whitmer Human Resources Center
60 Parkhurst St. Pontiac, Michigan 48053
(located behind Pontiac City Hall)
telephone no. 335-9461

ROYAL OAK.

Shrine High School
3500 West Thirteen Mile Road, Royal Oak, Michigan
(one block west of Woodward)
telephone no. 549-2925

WARREN.

General Motors Technical Center
Chicago and Van Dyke
Warren, Michigan
telephone no. 575-1595

In addition, other extension sites are offered from time to time based upon the request of employers who desire a particular course or institute conducted for a group of their employees at a particular site.

Oakland University's extension program has been warmly received by business, government and private agencies who rely upon it to provide specialized instruction to the personnel in their organizations. The flexibility of the University Extension Program is such that most courses can be taught at the employer's plant or office in coordination with the activities of the or-

ganization. In addition, course content can be structured to address a particular need or goal identified by the organization.

Courses of this nature, as with all University extension courses, qualify for tuition refund programs offered by the employing agency.

Notification of these sites is contained in the schedule of classes published each semester.

Copies of the evening schedule of classes are available upon request from:

Office of the Evening Program
264 South Foundation Hall
Rochester, Michigan 48063
Phone—(Area Code 313) 377-4010
8:00 a.m.-8:00 p.m., Monday-Thursday
8:00 a.m.-5:00 p.m., Friday

DEPARTMENT OF LEARNING SKILLS

CHAIRMAN Peter G. Evarts

PROFESSORS: Peter G. Evarts

ASSISTANT PROFESSORS: James H. Bullock; Barbara A. Gallow;
Barbara B. Hamilton; Mary Ann Vosgerchian; David R. Weinberg

ADJUNCT ASSISTANT PROFESSOR: George A. Jackson

INSTRUCTORS: N. Z. Bryant; Rose M. Cooper

SPECIAL INSTRUCTORS: Cordell W. Black; Bernadette Dickerson;
Raymond P. Guzman; Margaret Kurzman

STAFF OF READING CENTER: Rose M. Cooper Barbara A. Gallow

STAFF OF SKILL DEVELOPMENT CENTER: George A. Jackson,
Director of Special Programs; Margaret Kurzman, Co-ordinator of
Tutorial Services

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 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 Development 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, reading and study skills courses for freshmen students. Students are assigned to the courses on the basis of diagnostic tests, and should enroll in the course assigned at orientation or registration.

LS 050 BASIC WRITING SKILLS I. (4 credits)

A course, limited 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 060 SUPERVISED STUDY (1 credit)

A seven-week course offered within the Skill Development Center. The student is assigned to a tutor for a regular and concentrated series of lessons in the study techniques associated with a variety of subjects including mathematics, biology, physics and composition. No prerequisite.

LS 075 TUTORIAL IN WRITING SKILLS (4 credits)

A one-to-one course in writing. Instruction by the faculty of Learning Skills for at least six hours per week (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 076 TUTORIAL IN READING SKILLS (4 credits)

A course, designed for students who have problems in reading, utilizing the services of the Reading Center. It is offered on a one-to-one basis and includes initial diagnosis of reading difficulty and an individualized program of study. 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 students 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 seven-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.

NEW-CHARTER COLLEGE

CO-CHAIRMEN: F. James Clatworthy, Robert L. Stern

PROFESSORS: Edward A. Bantel

ASSOCIATE PROFESSORS: Marc. E. Briod; Richard W. Brooks, F. James Clatworthy; Leonardas V. Gerulaitis; Robert L. Stern

ASSISTANT PROFESSORS: Peter J. Bertocci; William C. Fish; James D. Graham; Edward M. Liddle; Karen Sacks; Ronald M. Swartz

INSTRUCTORS: Thomas Aston; Carol Halsted; Peg Kurzman; Mary Ann Brownlee Vosgerchian

New-Charter College is a unique program where all Oakland University students may take one or more courses. Any thirty-two credits completed in New-Charter College satisfy all the General Education Distribution Requirements. New-Charter College also provides for a flexible independent concentration that can be tailored to the student's needs or vocational aspirations.

New-Charter College provides an outstanding faculty repre-

sentative 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.

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 and all other media of expression will be used where appropriate and possible.

NCC 121 Images of Man (Fall semester)

(4 credits)

Literary sources are used to explore the similarities and differences between the lives of people in other cultures and our own lives. Novels, myths, biographies, essays, and plays are read from such diverse cultures as West Africa, American Indian, Ancient Greece, Ancient Indian, and Medieval Europe.

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 122 Personal Worlds (Winter Semester) (4 credits)

Literary sources are used to explore the fantastic, mythic, dreamlike quality of personal worlds. Analogies are drawn between the bizarre lives of others and the stranger within ourselves. Sources may include Kafka, Hesse, Vonnegut, Beckett, Camus, Ionesco, and others.

NCC 15X Forum (Winter) (2, 4 credits)

A topical course, which may be taken for 2 or 4 hours credit. Speakers from the greater Detroit area are invited to express their views about specific problems which they have been actively involved in trying to alleviate. Students taking the Forum for full credit are expected to undertake extra reading assignments and concrete forms of community involvement, in addition to participating in regular Forum discussion.

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", "Creativity", "Remedial Wisdom", "Energy Crisis!" "Feminism Past and Present", and "Perspectives on Psychological Research".

NCC 211 Group Experimental Theatre (Winter) (4 credits)

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 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

NURSING PROGRAM

PROGRAM SUPERVISOR: Moon Jae Pak

Oakland University is actively designing a baccalaureate program in nursing, planned to result in the award of the Bachelor of Science in Nursing degree. The program has been approved by the State Board of Education and by the University's Board of Trustees. Approval by the Michigan Board of Nursing is pending.

The B.S.N. curriculum will not start until the academic year 1975-76. Students interested in the B.S.N. curriculum should take the following typical schedule in 1974-75:

Fall 1974		Winter 1975	
BIO III	4	BIO 201	4
CHM 104	4	BIO 202 (Lab)	1
PSYCH 146	4	CHM 201	4
(or SOC 100)		SOC 100	4
LS 100		(or PSYCH 146)	
or	4	LS 101 (HCD)	
AC 200		or	
		AC 200	4
		or	
		Elective	

Students who do not take LS 100 in the Fall should take AC 200: Health Care Dimensions; students who take LS 101 in the Winter should do so in those sections labelled HCD; students who do not take LS 101 in the Winter, should take AC 200: HCD.

Fall		Winter	
BIO 203	4	BIO 231	4
BIO 204 (Lab)	1	BIO 232 (Lab)	1
CHM 209 (Lab; may be	2	Elective (either	4
taken either Fall or		Fall or Winter	
Winter)		depending on when	
PSYCH 271	4	CHM 204 is taken)	

Announcements will be made, as plans for the B.S.N. curriculum are developed.

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 inspecialized 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

JC 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 function 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 between students and instructors. These classes may be elected by freshmen and sophomores and may be used to meet the gen-

eral 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 out 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 philosophical 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 direction 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 JC 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 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 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 represented 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.

GRADUATE STUDY

DEAN: G. Philip Johnson

ASSISTANT DEAN: William H. Jones

Course offerings and programs of study beyond the baccalaureate level constitute a major Oakland University enterprise.

Most schools and departments offer some form of graduate work, and in nearly all cases these offerings comprise courses and research sufficient for the satisfaction of requirements for advanced degrees. There are available at present one doctoral program and eighteen master's programs. Additional programs at both degree levels are in prospect.

In each of the programs the University seeks to provide its students with intellectual challenge and opportunity for scholarly and professional growth. Its substantial resources in faculty, research facilities and support functions are all directed to these ends. A graduate program should not be solely a collection of courses and certainly should not be such if the courses are only casually related to each other. Rather it should be a carefully structured combination of studies and research designed in the aggregate to serve specific needs of the student. Students share with their advisers responsibility for constructing programs of study manifesting this character. They can expect close attention for the faculty while planning their studies and while pursuing them. In turn they should ask of themselves wholehearted commitment to the programs' demands.

Details of the programs and regulations of the Graduate Council, which governs graduate work, appear in the Graduate Catalog. Copies of the catalog are available from the Office of Graduate Study. Prospective students should in addition consult the school or department in which they wish to study.





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: Elinor Waters, Director, Continuum 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, Management Education Programs; G. Gordon Walker, Director, 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 both 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 diploma programs, courses, 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.

Courses 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 DIPLOMA (Noncredit) PROGRAMS

The division offers diploma programs for adults who wish to undertake a sustained program of studies in management, plastics technology, real estate and for medical office and ophthalmological/optometric assistants. The division also offers the Graduate Realtors Institute, Certified Public Accountant Review and Certificate in Data Processing Programs.

EVENING NONCREDIT COURSES

A program of noncredit courses, which includes old and new courses, is offered each fall, winter and spring. On campus over 100 courses are offered in business and investment, communication, computers, liberal arts, management, medical office, ophthalmological/optometric office, plastics technology, psychology and real estate.

INDEPENDENT STUDY (Correspondence)

Independent study (correspondence) diploma programs in communication, supervision, management, and marketing courses in real estate licensing preparation are available at any time.

CUSTOMIZED PROGRAMS AND COURSES

In addition, the division conducts numerous customized programs and courses designed specifically to meet the needs of business, government and social agencies. These are held both on-campus and on-site.

CONTINUING EDUCATION UNIT

The Continuing Education Unit (CEU) is a national measurement unit and is defined as 1 CEU per 10 classroom hours or equivalent. CEU's are used for recording, transfer and recognition of participation in noncredit courses. All courses offered by the division carry the CEU.

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.

LABOR EDUCATION

Noncredit courses, seminars and conferences are conducted for building trades, industrial and public employees.

ADULT COUNSELING AND LEADERSHIP TRAINING

The Continuum Center for Adult Counseling and Leadership Training is an adult guidance center which offers both counseling services and leadership training opportunities to individuals and organizations.

CULTURAL AND CONFERENCE CENTER

Meadow Brook Hall, the University's cultural and conference center, is administered by the Division of Continuing Education. The 100-room mansion, a remarkable revival of Tudor architecture, is open for public viewing and dining every Sunday 1-4 p.m. For information on group tours and daytime or residential conferences, write the hall or call 377-3140.



UNIVERSITY LIBRARIES

OFFICE OF THE DEAN: George L. Gardiner, Dean; Robert G. Gaylor, Associate Dean; Nancy S. Covert, Assistant to the Dean.

PROFESSORS: George L. Gardiner

ASSOCIATE PROFESSORS: Robert G. Gaylor; Lois L. Reilly.

ASSISTANT PROFESSORS: Louise M. Bugg; Nancy S. Covert; Jennie B. Cross; Eileen E. Hitchingham; Melbourne Jordan; John Kok; Janet A. Krompart; Richard L. Pettengill; Ann M. Pogany; Suzanne M. Tipler; Elizabeth A. Titus.

INSTRUCTORS: Donna A. Atkins; Sylvia M. Csiffary; S. Rita Sparks.

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 materials. The Division of Public Services offers 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 are active participants in the academic enterprise. They provide classroom as well as 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.

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 programs of instruction and research.

Since the faculty of the library are also responsible for research

outside of the immediate specialties 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, librarians 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, the sciences, government documents, general reference, cataloging and classification, and in the development of library collections are represented on the faculty. As active members of state, regional, and national professional associations, they make persistent efforts to provide better services, develop collections of high quality and increase the excellence of the university.

THE LIBRARIES

Oakland University's library collections are housed in Kresge Library and in the 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 collection of the University Libraries now contain approximately 260,000 volumes, 190,000 units of microfilm, and 6,000 recordings on disc or tape — all in open stacks. The Matilda R. Wilson Memorial Collection of works on 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. They include the specialized Performing Arts Library; a microform reading room; a Documents Department, housing both Federal and State of Michigan documents; 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; a Serials Department in charge of about 30,000 periodical volumes as well as other serial holdings and an emergent Audio-Visual Center.

UNIVERSITY FACULTY

OFFICERS OF INSTRUCTION

DONALD D. O'DOWD *President*
A.B., Dartmouth College; Professor of Psychology
M.A., Harvard University; Ph.d., Harvard University

FREDERICK W. OBEAR *Vice President for Academic Affairs*
B.S., Lowell Technological Institute; Provost
Ph.D., University of New Hampshire Asst. Professor of Chemistry

THE FACULTY

CHARLES WESLEY AKERS *Professor of History*
A.B., Eastern Nazarene College; A.M., Boston University;
Ph.D., Boston University

RAYNOLD L. ALLVIN *Associate Professor of Music*
Acting Chairman, Department of Music
A.B., San Jose State College; M.A., San Jose State College;
D.M.A., Stanford University

DONALD E. ANCTIL *Assistant Professor of Education*
B.A. San Francisco State Univ.; M.A. San Jose State Univ.
Ed. D. Utah State University

HERBERT APPLEMAN *Lecturer in English*
B.A., Harvard University
M.A., Columbia University

SHELDON L. APPLETON *Professor of Political Science*
B.A., New York University; M.A., New York University;
Ph.D., University of Minnesota

ENRIQUE ARANETA, JR. *Adjunct Prof. of Human Behavior*
Assoc. in Arts, University of the Allport College
Philippines
M.D., University of the Philippines

DANIEL P. ARMSTRONG *Instructor in English*
B.A., Marian College; M.A., Indiana University

HARVEY J. ARNOLD *Professor of Mathematics*
B.A., Queen's University; M.A., Queen's University;
M.A., Princeton University; Ph.D., Princeton University

TOM ASTON *Adjunct Asst. Professor of Speech Communication*
Western Washington State University
Wayne State University

DONNA A. ATKINS *Library Faculty Instructor*
A.B., University of Michigan; *University Library*
A.M.L.S., University of Michigan

JOHN W. ATLAS *Assistant Professor of Education*
B.S., Wayne State University
M.E.d., Wayne State University
Ed.D., Wayne State University

BONNY A. AVERY *Visiting Instructor in Library*
B.A., Michigan State University
M.S.L.S., Wayne State University

EDWARD A. BANTEL *Professor of Education*
B.A., Columbia University; *Professor of Psychology*
M.A., Columbia University; *(Faculty of Education)*
Ed.D., Columbia University

V. JOHN BARNARD *Professor of History*
B.A., Oberlin College; M.A., University of Chicago;
Ph.D., University of Chicago

CARL F. BARNES, JR. *Professor of Art History & Archeology*
Chairman, Department of Art and Art History & Archeology
B.A., Washington and Lee University;
M.A., Columbia University; Ph.D., Columbia University

RICHARD F. BARRON *Assistant Professor of Education*
B.S., State University College *Director of Graduate Programs*
at Geneseo, New York;
M.Ed., University of Arizona
Ph.D., Syracuse University

JOHN W. BARTHEL *Associate Prof. of German NA Linguistics*
B.S., University of Illinois; Ph.D., University of Illinois

JOHN L. BEARDMAN *Associate Professor of Art*
A.B., Oberlin College; M.A., Southern Illinois University;
M.F.A., Southern Illinois University

DAVID C. BEARDSLEE *Professor of Psychology*
B.A., Swarthmore College; *Dir., Office of Institutional Research*
M.S., University of Michigan; Ph.D., University of Michigan

JAMES W. BEERS *Instructor in Education*
B.A. Johns Hopkins University;
M.A. University of Virginia

ELLIOTT L. BEITNER *Adjunct Prof. of Behavioral Sciences*
B.A., Wayne University *Allport College*
J.D., Wayne State University

PETER J. BERTOCCI *Assistant Professor of Anthropology*
B.A., Bates College; M.A., The Johns Hopkins University;
Ph.D., Michigan State University

WILLIAM E. BEZDEK *Assistant Professor of Sociology*
B.S., Bradley University; M.A., Bradley University;
Ph.D., University of Chicago

JANE M. BINGHAM *Assistant Professor of Education*
B.A., Central Michigan University
M.A., Michigan State University
Ph.D., Michigan State University

PETER J. BINKERT *Assistant Prof. of Linguistics & Classics*
B.A., Rutgers University; M.A., University of Michigan;
Ph.D., University of Michigan

CORDELL W. BLACK *Special Instructor in Learning Skills*
B.A., St. Augustine College; M.A., Wayne State University

GLORIA T. BLATT *Assistant Professor of Education*
B.A., University of Cincinnati
M.A., Michigan State University
Ph.D., Michigan State University

ROBERT N. BLOCKOVICH *Assistant Professor of Psychology*
A.B., Pennsylvania State University;
M.A., Wayne State University;
Ph.D., Wayne State University

DAVID E. BODDY *Associate Professor of Engineering*
B.S.M.E., Purdue University
M.S.E., Purdue University
Ph.D., Purdue University

EUGENE H. BOLDON *Associate Professor of Education*
B.S., Wayne State University *Asst. Director of Intercollegiate*
M.S., University of Michigan *Athletics*
Head Basketball Coach

PAUL BANAS *Visiting Lecturer in Economics*
B.A., University of Connecticut *and Management*
M.A., University of Minnesota
Ph.D., University of Minnesota

ELEFTHERIOS N. BOTSAS *Associate Professor of*
B.S., University of Detroit; *Economics and Management*
M.A., Wayne State University; *(Faculty of Economics-*
Ph.D., Wayne State University *Management*

D. ANITA BOZARDT *Assistant Prof. of Education*
B.S., University of Georgia
M.Ed., University of Georgia
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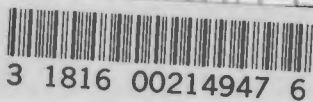
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