

DEPARTMENT OF MATHEMATICS

- Professors:** Harvey J. Arnold (on leave)
 Louis R. Bragg (on leave)
 John W. Dettman
 George F. Feeman, Chairman
 William C. Hoffman
 G. Philip Johnson, Dean of Graduate Studies
 James H. McKay
 Harvey A. Smith
- Associate Professors:** Ronald A. DeVore
 Jon Froemke
 Donald G. Malm
 Yel-Chiang Wu
- Assistant Professors:** Robert Casady
 J. Curtis Chipman
 Robert Fontenot
 Gerald Garfinkel
 Louis J. Nachman
 Marion Orton
 Irwin Schochetman
 Robert Sharpley
 Kent Westerbeck

The Department of Mathematics offers programs of study leading to the degrees of Bachelor of Arts with liberal arts major in mathematics, Bachelor of Arts with secondary teaching major in mathematics, Master of Arts in mathematics, and Master of Arts in Teaching in mathematics. In addition, the Department offers courses which are required or are used as electives in other programs of the University. For further information on graduate programs of the Department, see the *Graduate Bulletin*.

Students electing the liberal arts major in mathematics or the secondary teaching major in mathematics may complete their general education requirement in the College of Arts and Sciences or in Allport College, New College, or Charter College. They should make their choice in consultation with their departmental adviser and with the head of their chosen college.

A student with strong interest and ability in mathematics should consider taking MTH 190, 191, 290, and 291. (MTH 190 and 191 are for freshmen; MTH 290 and 291 are for sophomores.) These courses, which are to be taken concurrently with calculus, are

ARTS AND SCIENCES

designed to provide the student with an opportunity to experience mathematics on a more sophisticated level than is usually found in freshman and sophomore mathematics courses. The courses are independent of each other; a student may take any one of them at the appropriate level without having taken any of the preceding ones.

The Mathematics Department recognizes the need for multiple options for its majors and is currently studying curricular revisions in the applied mathematics area. Discussions are being held with representatives from economics, engineering, psychology, and the sciences to identify and develop approximate cross-departmental concentrations, in addition to the computer science concentration. It is anticipated that concentrations in mathematical science, operations research, statistics, and other areas will evolve from these discussions. Interested students are advised to speak to Department members before planning their programs.

Requirements for the Liberal Arts Major in Mathematics

Forty (40) credits in mathematics are required for the major. The application of this requirement begins with students who have not yet taken any mathematics courses beyond MTH 255. Each student must take one of MTH 331, 351, or 451 and one of MTH 375 or 475 in his program.

The honors courses MTH 190, 191, 290, and 291 may count toward the major as separate one-credit courses. Apart from these honors courses only MTH 154, 155, 254, 322 and courses with MTH 254 as prerequisite may be used to satisfy the major requirement.

Two science courses (8 credits) are required; these are to be taken from the same department. Four courses (16 credits) in a subject related to mathematics are also required. (These courses must be taken in a single department.) If they are taken in a science they may be used simultaneously to satisfy the requirement in science.

Students planning to do graduate work in mathematics should take MTH 451 and MTH 475 in preference to MTH 351 and MTH 375. In addition, they should take MTH 452, 461, 476, and as many other mathematics courses, including courses at the 500 level, as their programs permit.

Students who are planning to do graduate work in mathematics should be aware that many graduate programs require reading

ARTS AND SCIENCES

knowledge of at least one foreign language for study beyond the master's degree level; it is important that such students include language study in their undergraduate program.

Requirements for the Secondary Teaching Major in Mathematics

Mathematics Course Requirements:

Thirty-six (36) credit hours of course work in mathematics are required. Twenty-four hours (six courses) are required as follows:

- 2 semesters of elementary calculus (MTH 154-155)
- 1 semester of linear algebra (MTH 254)
- 1 semester of analysis (MTH 351 or 451)
- 1 semester of abstract algebra (MTH 375 or 475)
- 1 semester of geometry (MTH 361)

The other twelve hours may be chosen from among MTH 255 (Multivariable Calculus) or the Department offerings numbering 322 or above. Each student **must** select one of MTH 322, 325, or 335 as part of the program. Only those courses which satisfy the liberal arts major in mathematics may be used to satisfy this requirement.

Methods and Internship:

Students are invited to participate in tutorial efforts as early as the sophomore year. The requirements are as follows:

1. Sophomore and/or Junior Year
 - a. Students take Ed 244-245 (8 credits total).
 - b. Students provide tutorial assistance at Oakland, with guidance from Math. faculty, in courses such as MTH 120, 132, 133, 134, or the Academic Support Center. Each student in the program **must** register for MTH 497 Apprentice Teaching for four (4) credits either in the fall or winter term.
 - c. Winter term, Junior year (or after the accumulation of 80 credits toward graduation). Each student in the program **must** register for Ed 428 Math Methods (4 credits), a combination of methods work at Oakland and tutorial work in selected public schools, the latter with guidance from teachers in those schools.
2. Senior Year (or after the accumulation of 96 credits toward graduation)

ARTS AND SCIENCES

- a. Fall term: Students do internship in the field. Each student will spend a full semester as an intern. A weekly seminar at Oakland will be required with this internship. Each student will receive 12 credits for the semester—8 credits for Ed 455 and 4 credits for Ed 590. Registration must be done in this fashion.

Other Requirements and Recommendations:

A minor of 20 or 24 credits is required. If the minor is taken in one department, five courses (20 credits) are required. If the minor is taken in an area, six courses are required. Courses may be used to satisfy simultaneously minor requirements and distribution requirements.

It is recommended that secondary majors take a course on reading at the secondary level with specific work on reading problems in mathematics, a course on learning theory, and a course on child growth and development with emphasis on the teenage years.

Requirements for the Secondary Teaching Minor in Mathematics

Five courses (20 credits) in mathematics are required, including MTH 154-155. It is recommended that the other courses be selected from MTH 226, 254, 255, 325, 326, 335, 336, 351, 361, and 375. (Only MTH 154, 155, and courses with MTH 155 as a prerequisite may be used to satisfy this requirement, except that the sequence MTH 190, 191, 290, 291 of four 1-credit courses can be substituted for one 4-credit course.)

Concentration in Computer Science

For students majoring in mathematics, the requirements for the Concentration in Computer Science are 16 credits in Computer and Information Science (CIS) courses and four courses chosen from among MTH 322, MTH 325-326, MTH 331 or 351, MTH 335-336, or their 400-level equivalents. At least one 2-term sequence is required. The mathematics courses taken may also be used to satisfy some of the requirements of the liberal arts or secondary education major in mathematics. It is recommended that the sequence CIS 182-183-382 be completed early in the program.

Proficiency Examinations and Advanced Placement

Well-prepared freshmen who intend to major in mathematics, engineering, or science should plan to take MTH 154 as early as possible. A proficiency examination will be given by the Department of Mathematics, and students judged ready for calculus may enroll in MTH 154. Others must first pass MTH 132-133 or MTH 134; the Department of Mathematics will recommend the proper precalculus course in such cases for the individual student. MTH 132-133 may be taken only with the permission and advice of the Department of Mathematics.

Students who have not had trigonometry should plan to take a precalculus course before enrolling in MTH 154, regardless of the results of the proficiency examination.

Freshmen who have had calculus in high school may apply to the Department for advanced placement. Those having scores of 4 or 5 on the College Entrance Examination Board advanced placement test will receive credit for MTH 154-155. Others, including those with scores of 3, will receive credit or advanced placement as deemed appropriate for their backgrounds.

Course Offerings

Students should realize that while the Department will make every attempt to adhere to the scheduling of courses as presented in this catalog, special circumstances may occasionally necessitate changes. They should further realize that a number of the courses will be offered at times other than those indicated including, in particular, the Spring and Summer Sessions.

MTH 120 Preparation for Mathematics for the (4 credits) **Life and Social Sciences**

A one-semester study of topics from algebra and geometry needed for entry into MTH 121. Graded on an S/N basis. Requires permission of the Department.

MTH 121-122 Introductory Mathematics for (4 credits each) **the Life and Social Sciences**

Elementary set theory, number systems, functions, linear systems, linear programming, matrices, and the basic concepts, theorems, and applications of calculus. MTH 121 is offered in the Fall Semester; MTH 122 is offered in the Winter Semester.

Prerequisites: Three years of high school mathematics.

MTH 125 Introduction to Probability and (4 credits) **Statistics**

Elementary set theory, sample spaces, combinatorics, random variables, Chebyshev's inequality, Bernoulli trials, binomial distribution, joint distributions, and introduction

ARTS AND SCIENCES

to statistics. Offered on sufficient demand.

Prerequisites: Three years of high school mathematics.

MTH 132-133 Precalculus (4 credits each)

A one or two semester study, as needed, of material required for entry into MTH 134 or MTH 154, including selected topics from algebra, geometry and trigonometry. Graded on an S/N basis. Requires permission of the Department.

MTH 134 Elementary Functions (4 credits)

A one semester course covering material needed as a prerequisite to MTH 154-155. Topics covered include linear equations, polynomials, exponential and logarithmic functions, the trigonometric functions, and selected topics from analytic geometry. Graded on an S/N basis.

Prerequisite: Three years of high school mathematics.

MTH 154-155 Calculus (4 credits each)

A comprehensive study of analytic geometry, limits, differentiation and integration of functions of one real variable. Each is offered in the Fall and Winter Semesters; MTH 155 is also offered in the Spring Session.

Prerequisites: MTH 132-133 or MTH 134 or satisfactory performance on a proficiency examination.

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

An 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. Credit cannot be earned for both MTH 125 and MTH 226. Offered on sufficient demand.

Prerequisite: MTH 155.

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.

ARTS AND SCIENCES

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 290 Topics in Mathematics (1 credit)

Similar to MTH 190. Enrollment limited to sophomores. Offered in the Fall Semester.
Prerequisite: Permission of the Department. MTH 254 or 255 must be taken concurrently.

MTH 291 Topics in Mathematics (1 credit)

Similar to MTH 190. Enrollment limited to sophomores. Offered in the Winter Semester.
Prerequisite: Permission of the Department. MTH 255 must be taken concurrently.

MTH 314 Structure of Number Systems (4 credits)

Emphasizes the logical structure of the real number system. Properties of the natural numbers, integers, rational numbers, and real numbers are carefully proved. Computational techniques and teaching methods which pertain to the mathematics of the elementary grades. Enrollment is limited to majors in elementary education. Not open to freshmen. Offered in both the Fall and Winter Semesters.
Prerequisites: Two years of high school mathematics.

MTH 315 Algebraic Structures (4 credits)

From properties of numbers, algebraic concepts are developed; examples of other algebraic systems are investigated to show the generality and structure of algebra. Enrollment is limited to majors in elementary education. Not open to freshmen. Offered in both the Fall and Winter Semesters.
Prerequisites: Two years of high school mathematics.

MTH 316 Topics in Geometry (4 credits)

An informal approach to geometry including topics selected from Euclidean geometry and transformation geometry with emphasis on ruler and compass constructions and the concept of symmetry. Enrollment is limited to majors in elementary education. Not open to freshmen. Offered in both the Fall and Winter Semesters.
Prerequisites: Two years of high school mathematics.

MTH 322 Mathematical Models in the Social Sciences (4 credits)

Formulation in mathematical terms of phenomena from the social sciences, solution of the resulting mathematical problems, and the interpretation of results. Models will be drawn from economic theory, ecology, theoretical sociology, and management science. Offered in the Winter Semester.
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. MTH 325 is offered every year; MTH 326 is offered every other year.
Prerequisite: MTH 255.

ARTS AND SCIENCES

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. Offered in the Winter Semester.

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.

ARTS AND SCIENCES

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)

Library research on some mathematical topic.

Prerequisite: Permission of the Department.

MTH 497 Apprentice College Teaching (2 or 4 credits)

Open to any well-qualified upperclassman who obtains consent of a faculty member to assist in presenting a regular college course. The apprentice should be capable of assuming limited classroom teaching duties.

Prerequisite: Permission of the Instructor involved.

MTH 504 Review of Abstract Ideas (4 credits)

This course is a review of mathematical concepts, including topics from set theory, logic, number theory, algebra, and analysis. It is intended to be a transitional course for those who are interested in the MAT program but need refresher work. It may not be used for credit toward the degree.

Prerequisite: Permission of the Department.

MTH 510 The Secondary Mathematics Curriculum (4 credits)

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

Prerequisite: Permission of the Department.

MTH 511 Mathematics for the Elementary School Teacher I (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.

ARTS AND SCIENCES

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.

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.

Prerequisites: MTH 254 or permission of the Department.

MTH 525-526 Probability and Statistics (4 credits each)

Combinatorial analysis, random variables, central limit theorem, recurrent events, distribution theory, sampling, statistical estimation, hypothesis testing, regression analysis, analysis of variance, and applications.

Prerequisite: Permission of the Department.

MTH 531 Mathematical Methods in Engineering I (4 credits)

Vector spaces and matrices, eigenvalue problems, applications to systems of differential equations, numerical methods in linear algebra. Infinite series, Taylor's series, power series methods in differential equations. Offered in the Fall Semester.

Prerequisite: Permission of the Department.

MTH 532 Mathematical Methods in Engineering II (4 credits)

Functions of several variables, vector field theory, partial differential equations, boundary value problems, Fourier series, and Fourier integrals. Offered in the Winter Semester.

Prerequisite: Permission of the Department.

MTH 541-542 Advanced Mathematical Science (4 credits each)

Structure of dynamical systems. Application to mechanics, wave motion, diffusion, and statistical mechanics. Dynamical systems and control theory in economics and

ARTS AND SCIENCES

the life sciences. Fundamental mathematical structures of the physical, life, and social sciences. The role of probability and statistical inference.

Prerequisites: MTH 465 or the equivalent.

MTH 551-552 Real Analysis (4 credits each)

The general theory of measure and integration, including development of the Lebesgue integral, the classical Banach spaces, and elements of functional analysis.

Prerequisite: MTH 452.

MTH 555-556 Complex Analysis (4 credits each)

Analytic functions, Cauchy's theorem, representation theorems, analytic continuation, Riemann surfaces, conformal mapping.

Prerequisite: MTH 452.

MTH 561-562 Topology (4 credits each)

MTH 561 is an introduction to algebraic topology. Topics covered include elementary homotopy and homology theory. MTH 562 will cover various topics in algebraic and general topology at the discretion of the instructor.

Prerequisites: MTH 476 and MTH 461.

MTH 565 Topological Algebraic Structures (4 credits)

A brief survey of topological groups, vector spaces, and algebras followed by detailed study of one or more special cases, such as locally compact groups, Lie groups, Lie algebras, Banach spaces, or Banach algebras.

Prerequisite: Permission of the Department.

MTH 571-572 Algebra (4 credits each)

Group theory, rings and modules, linear and multilinear algebra, and field extensions. Emphasis is placed, where possible, on categorical properties and functorial relationships.

Prerequisite: MTH 476.

MTH 590 Directed Reading and Research (2, 4, 6, or 8 credits)

Prerequisite: Permission of the Department.

DEPARTMENT OF MODERN LANGUAGES AND LITERATURES

- Professors:** Norman Susskind (French), Chairman
 Alfred J. DuBruck (French)
 Helen Kovach (Russian)
 Carmine R. Linsalata (Spanish)
 Richard A. Mazzara (French)
 Jack R. Moeller (German)
 Robert E. Simmons (German)
 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:** Norman M. Brown (German)
 Carlo Coppola (Hindi-Urdu)
 William D. Jaymes (French)
 John Marney (Chinese)
- Instructors:** Jerry M. Freeman (Russian)
 Reiner M. Guertler (German)
 Roy I. Madsen (French)
 Mariano Pallarés (Spanish)
 David Saint-Amour (French)
- Special Instructors:** Cordell W. Black (French)
 Lee M. Corrigan (Russian)
 Anna R. Massacesi (Spanish)
 Norbert Noeldechen (German)
 Shih-Chen Peng (Chinese)
 Lieselotte T. Schachner (German)
- Visiting Lecturer:** Joshua Chorowsky (Hebrew)
 Mordecai L. Opher ((Hebrew)
- Associated Faculty
 Instructor:** Carl W. Johnson (Swahili)
 (Linguistics and Modern Languages)

The aim of the modern language curriculum is to help students acquire competence in the language of a given country and, through the study of its literature and civilization, to acquaint them

ARTS AND SCIENCES

with the cultural background of that country. The major in a modern foreign language and its literature is primarily a humanities major. It also prepares the student for professional graduate work, for teaching at the secondary and elementary levels, and for other careers.

Students whose main interests lie in other fields may wish to investigate the advantages of combining them with competence in a foreign language. Today the thorough knowledge of a foreign language has as much practical as intellectual validity. Students interested in study abroad, graduate work, or non-academic careers may get assistance in the Department from special advisers who are familiar with the possibilities in these areas.

A variety of approaches is used. In classes aimed at developing ability to speak, read, and write, instruction is integrated with work in a complete language laboratory. Most intermediate and advanced courses are conducted in the language concerned, for all courses are designed to improve a student's proficiency in a particular language. In French, Spanish, German and Russian there are courses where attention is focused on reading. Because in these courses no time is devoted to aural comprehension, writing, or speaking, progress in the single remaining skill can be much faster. Some of these courses use programmed material, which permits the student to move ahead at his or her own pace.

The selection of language to study should be a reasoned, not a random one. It is usually best to continue with a language studied in high school. However, if students wish to learn a language not widely taught at the secondary level, they should not hesitate to change. Those who need advice about these choices are urged to consult with a member of the Department.

Placement Examinations

Two language tests are administered by the Department. The Modern Language Aptitude Test is designed to indicate aural ability. Test results are used in helping students to select the 101 or 114 series courses in French, German, and Spanish. Students who enter Oakland University with previous study in French, German, or Spanish take the Placement Examination. This examination tests skills in the specific foreign language in order to insure placement at a level commensurate with the student's ability.

Departmental Programs

The Department of Modern Languages and Literatures offers programs of study leading to the degree of Bachelor of Arts with the following majors: the liberal arts major in a modern language; the liberal arts major in a modern language with a concentration in linguistics or area studies; the liberal art majors in Chinese language and civilization, in Latin American languages and civilization, and in Russian language and civilization; and the secondary teaching major in a modern language. The Department also offers a secondary teaching minor in a modern language and a modern language concentration for the elementary teacher. Students may plan individual programs with the aid of an adviser to achieve maximum flexibility in course work offered to satisfy the degree requirements.

Requirements for the Liberal Arts Major in a Modern Language

The requirement is nine courses (36 credits) in the chosen language, its culture, and its literature beyond 215. Ordinarily these include two sequences, Composition and Conversation 311-312 and Introduction to Literature 371-372 (the sequences may be taken concurrently), and five advanced courses at the 300-499 level. Majors in French, German, and Spanish must complete a departmental reading list. Majors in French and Spanish must participate in a senior level course (485), which is based upon materials from the reading list. This course is ordinarily scheduled during the student's eighth semester. Majors are urged to elect courses in other literatures, history, philosophy, art, linguistics, and area studies related to their major. Those planning to do graduate work are strongly urged to begin work in a second language to be recommended by the Department.

Requirements for the Liberal Arts Major in a Modern Language with a Concentration in Linguistics

A modified major in a modern language with a concentration in linguistics is available for interested students. For concentrations in French and linguistics, German and linguistics, Russian and linguistics, and Spanish and linguistics, see p. 179.

Requirements for the Liberal Arts Major in Chinese Language and Civilization

The requirement in Chinese for this major is eight courses (36 credits), ordinarily CHE 114-115, 214-215, and four others selected

ARTS AND SCIENCES

from departmental offerings in consultation with an adviser. Five China area courses (20 credits) beyond UC 062 and including AS 490 are also required. For more information on this program, see the programs offered by the Language and Area Center for East Asia on pp. 267-268 of this catalog.

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

The requirement in Spanish for this major is six courses (24 credits) beyond SPN 214-215 selected from departmental offerings in consultation with an adviser. Five additional courses (20 credits), including AS 490, focused on the Latin American area and chosen from appropriate offerings from other departments within the College of Arts and Sciences, are also required.

An alternative language requirement for this major is four courses (16 credits) in Spanish beyond SPN 214-215, and three courses (15 credits) in Portuguese language and literature.

Requirements for the Liberal Arts Major in Russian Language and Civilization

The requirement in Russian for this major is eight courses (36 credits), ordinarily RUS 114-115, 214-215, and four others selected from departmental offerings in consultation with an adviser. Five area courses (20 credits) selected from Slavic studies course offerings and including AS 490 are also required. For more information on this program, see the Slavic studies program on pp. 270-271 of this catalog.

Requirements for the Secondary Teaching Major in a Modern Language

The requirement is eight courses (32 credits) in the chosen language and its literature (French, German, Russian, Spanish) beyond 215. (No teaching major is offered in Chinese.) Ordinarily these include two sequences, Composition and Conversation 311-312 and Introduction to Literature 371, 372 (the sequences may be taken concurrently), 365, 461 and two other courses at the 400-499 level. All majors (except Russian) must complete a departmental reading list, and all majors (except Russian and German) must participate in a senior level course (485), which is based upon materials from the reading list. This course is ordinarily scheduled during the student's eighth semester. In addition, 20 credits in education are required: ED 244, 245, ED 428, and ED 455.

Requirements for the Secondary Teaching Minor in a Modern Language

The requirement is four courses (16 credits) in the chosen language beyond 215. These normally include Composition and Conversation 311-312 and Advanced Composition and Conversation 461. The fourth course usually recommended is 365, but 371 or 372 may be taken in its place. Students are strongly urged to take as many additional courses at the 300-499 level as their schedules will permit.

Requirements for an Elementary Teaching Concentration

The modern language concentration is designed for students who wish to teach a foreign language in the elementary grades or at the junior high school level. The requirements are the same as those for the teaching minor (above). For complete details on other requirements, including courses in education, see pp. 315-318.

Chinese Language and Literature

CHE 114-115 First Year Chinese (5 credits each)

An introduction to modern Mandarin Chinese (Kuo-yu), emphasizing both conversation and reading.

CHE 214-215 Second Year Chinese (5 credits each)

Continued study of Kuo-yu with increasing emphasis on reading and composition. May be conducted as a tutorial.

Prerequisites: CHE 114-115 or permission of the instructor.

CHE 310 Literary Chinese (4 credits)

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

Prerequisites: CHE 215 or permission of the instructor.

CHE 312 Advanced Pai-hua (4 credits)

This will be an intensive course in spoken colloquial Chinese, with emphasis on grammatical constructions and sentence patterns.

Prerequisites: CHE 215 or permission of the instructor.

CHE 320 Readings in Chinese Newspapers (4 credits)

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

Prerequisites: CHE 215 or permission of the instructor.

CHE 330 Readings in Chinese Communist Documents (4 credits)

Studies in documentary style of Chinese, selected mainly from writings of twentieth century political leaders of China.

Prerequisites: CHE 215 or permission of the instructor.

ARTS AND SCIENCES

CHE 340 Twentieth Century Chinese Literature (4 credits)

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

Prerequisites: CHE 215 or permission of the Instructor.

CHE 410 Traditional Chinese Fiction and Drama (4 credits)

Studies in texts and criticism of classical drama from Yüan and other dynasties.

Prerequisites: CHE 310, or CHE 320, or permission of the Instructor.

CHE 421 Selected Classical Texts (4 credits)

Studies of texts in advanced literary Chinese.

Prerequisites: CHE 310 or CHE 312 or permission of the Instructor.

CHE 431 Classical Chinese Stories (4 credits)

Studies of selected stories from different classical Chinese sources.

Prerequisites: CHE 310 or CHE 312 or permission of the Instructor.

CHE 440 Chinese Poetry (4 credits)

Selections from either classical T'ang and Sung Dynasty poems or from the post-May-4th movement of poetry.

Prerequisites: CHE 310, or CHE 320, or permission of the Instructor.

CHE 490 Directed Readings and Research in Chinese (2, 4, or 8 credits)

For students with a high degree of competence in the language. Might be conducted either in literary Chinese or in modern languages.

Prerequisites: Major standing and permission of the Instructor.

French Language and Literature

FRH 101 Elementary Reading in French (4 credits)

The course will emphasize the reading and comprehension of French. There will be a good deal of translation involved, and class attendance will be obligatory. To be followed by FRH 102. Not open to prospective majors.

FRH 102 Elementary Reading in French (4 credits)

FRH 102 will continue Fall 1972 in the present programmed and self-paced format, but will be revised in conformity with the above description of FRH 101 beginning Winter 1973. To be followed by FRH 201-202. Not open to prospective majors.

FRH 114-115 First Year French (5 credits each)

Devoted to aural-oral adaptation, the study of fundamental speech patterns, practice in writing, and the reading of graded texts. Not ordinarily open to students who have had two or more years of secondary school preparation. Admission contingent upon departmental testing. To be followed by FRH 214-215.

FRH 201-202 Intermediate Reading in French (4 credits each)

Continued development of reading skill, extensive readings in cultural and literary texts, and unedited materials of various kinds.

Prerequisites: FRH 102 or placement by departmental testing. Not open to prospective majors.

FRH 214-215 Second Year French (5 credits each)

Devoted to aural-oral adaptation. Review of grammar essentials and more intensive

ARTS AND SCIENCES

practice in developing speaking and writing skills combined with reading of literary and cultural texts.

Prerequisites: FRH 115 or an appropriate placement examination score.

FRH 285, 286 Main Currents of French Thought and Literature (4 credits each)

Man and society as seen in the works of representative authors from the Renaissance to the present. Lectures and readings in English.

FRH 285 covers the period from the Renaissance to the nineteenth century.

FRH 286 deals with the nineteenth and twentieth centuries.

Open to French majors as elective only; does not carry credit toward departmental major.

Prerequisites: Sophomore standing or permission of the instructor.

FRH 287 Studies in Black Literature Written in French (4 credits)

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

Prerequisites: Sophomore standing or permission of the instructor.

FRH 290 Directed Readings in French (2 or 4 credits)

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

Prerequisites: FRH 202, or FRH 215, or permission of the Department.

FRH 311-312 French Composition and (4 credits each) Conversation

Devoted to increasing the student's command of the language and familiarizing him with idiomatic French. Intensive practice in oral and written composition as well as translation. Techniques of textual analysis and exposition are introduced. Conducted primarily in French.

Prerequisites: FRH 215 or an appropriate placement examination score. Especially qualified freshmen may be admitted.

FRH 351 French Civilization (4 credits)

A survey of French achievements in art, music, and other cultural fields. Emphasis will be placed on the various aspects of French culture in daily life. Conducted primarily in French.

Prerequisites: FRH 215 or an appropriate placement examination score.

FRH 365 Applied Linguistics of French (4 credits)

An introduction to modern linguistic insights with particular reference to their application in the understanding and teaching of the contemporary language; a brief survey of the nature of the linguistic changes underlying the development of modern French. Required for secondary teaching majors. Identical with LIN 365.

Prerequisites: FRH 312 or permission of the Instructor.

ARTS AND SCIENCES

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 attempts to introduce the student to French cultures and thought via the cinematic medium. Lecture, film viewing and discussion. Whenever obtainable, the scenario will be read.

Prerequisite: Permission of the Instructor.

FRH 411 Literature of the French Renaissance (4 credits)

Literary, intellectual, and linguistic trends as seen in selected works of principal authors of this period: Rabelais, Marot, Montaigne, Ronsard, and others. Conducted in French. Prerequisite: FRH 372.

FRH 421, 422 Seventeenth Century French Literature (4 credits each)

FRH 421 deals with the development and character of French Classicism: Descartes, Pascal, the novels of D'Urfé and Mme de La Fayette, the theatre of Corneille and Racine.

FRH 422 is principally a study of Molière and La Fontaine. Selections from the great prose writers: La Rochefoucauld, Mme de Sévigné, Bossuet, La Bruyère, Fénelon, Saint-Simon, Bayle, and Fontenelle. These courses are conducted in French.

Prerequisite: FRH 372.

FRH 431, 432 Eighteenth Century French Literature (4 credits each)

FRH 431 deals with the development of the philosophical spirit from Bayle to Voltaire; the interplay between France and England, the comedy of Marivaux and Beaumarchais and developments in the novel.

FRH 432 deals with political, social, and ethical thought of the Enlightenment; the Encyclopedists and later Philosophes. Primarily a study of Montesquieu, Diderot, and Rousseau, including the origins of Romanticism. These courses are conducted in French.

Prerequisite: FRH 372.

FRH 441, 442 Nineteenth Century French Literature (4 credits each)

FRH 441 is concerned with the flowering of Romanticism and the beginnings of Realism: novelists, dramatists, poets, and essayists, including Chateaubriand, Lamartine, Hugo, Vigny, Musset, Nerval, and Stendhal.

FRH 442 deals with the realistic novel, review of the Parnassian poets and the problem play, and the aesthetics of Naturalism; the relation of literature to the philosophical, political, and social ideas of the time. Primarily a study of Balzac, Flaubert, Zola, the Goncourts, and de Maupassant. These courses are conducted in French.

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,

ARTS AND SCIENCES

Gide, Mauriac, Malraux, Camus, Sartre, and representative authors of the new school. Conducted in French.

Prerequisite: FRH 372.

FRH 452 Twentieth Century French Theatre (4 credits)

Drama since the *Theatre Libre*. Theatrical innovations and reforms of Copeau, Jovet, 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.

Prerequisite: FRH 372.

FRH 453 Modern French Poetry (4 credits)

Reading and discussion of French poetry from Symbolism to the present. Conducted in French.

Prerequisite: FRH 372.

FRH 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 French authors. Strongly recommended for all students, especially those planning to teach at the elementary level. Required for secondary teaching majors.

Prerequisite: FRH 312.

FRH 480 Seminar in French Literature (4 credits)

Study of individual authors, selected themes, or critical problems.

Prerequisites: Major standing in French and permission of the instructor.

FRH 485 Senior Tutorial Readings (4 credits)

Readings, lectures, discussions based on departmental reading list for French majors. Required of senior majors, not open to others.

Prerequisites: Major standing in French and permission of the Department.

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

Directed individual research and reading designed for advanced French majors. May be taken for one or more semesters.

Prerequisite: Permission of the Department.

German Language and Literature

GRM 101-102 Elementary Reading in German (4 credits each)

Designed to help students acquire a reading knowledge of German. Elements of grammar, extensive reading of graded texts. Admission contingent upon departmental testing. To be followed by GRM 201-202. Not open to prospective majors.

GRM 114-115 First Year German (5 credits each)

Devoted to aural-oral adaptation, the study of fundamental speech patterns, practice in writing, and the reading of graded texts. Not ordinarily open to students who have had two or more years of secondary school preparation. To be followed by GRM 214-215.

ARTS AND SCIENCES

GRM 201-202 Intermediate Reading in German (4 credits each)

Continued development of reading skill, extensive readings in cultural, literary, and scientific texts. Additional reading materials chosen according to class interests.

Prerequisites: GRM 102 or placement by departmental testing. Not open to prospective majors.

GRM 214-215 Second Year German (5 credits each)

Review of grammar essentials and more intensive practice in developing speaking and writing skills, combined with reading of literary and cultural texts.

Prerequisites: GRM 115 or an appropriate placement examination score.

GRM 285 Main Currents of German Thought and Literature (4 credits)

A survey of German culture from the Enlightenment to the present day, as reflected in philosophical, critical, and literary works from the various eras. Lectures and readings in English. Open to German majors as elective only; does not carry credit toward departmental major. Offered in alternate years.

Prerequisites: Sophomore standing or permission of the instructor.

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

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

Prerequisites: GRM 202, or GRM 215, or permission of the Department.

GRM 311-312 German Composition and 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 or permission of the instructor.

GRM 365 Applied Linguistics of German (4 credits)

An Introduction to modern linguistic insights with particular reference to their application in the understanding and teaching of the contemporary language; a brief survey of the nature of the linguistic changes underlying the development of modern German. Required for secondary teaching majors. Offered in the Winter Semester. Identical with LIN 365.

Prerequisites: GRM 312 or permission of the instructor.

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

GRM 371 is concerned with textual analysis of different literary genres with emphasis on techniques of literary interpretation. Classwork in German. Usually offered in the Fall Semester. GRM 372 is devoted to analyses and survey of twentieth century

ARTS AND SCIENCES

German literature, with special emphasis on post-World War II works. Introduction to the use of secondary sources in the study of literature. Usually offered in the Winter Semester.

Prerequisites: GRM 215 or an appropriate placement examination score. Especially qualified freshmen may be admitted.

GRM 407 German for the Classroom (4 credits)

Practice in the active use of German as needed for conducting classroom activities, with emphasis on pronunciation, grammar, vocabulary, and conversation. Incorporation of audio-visual media, film, tape and slides in teaching. Strongly recommended for elementary and secondary teaching majors. Open to liberal arts majors as elective credit only. Offered in the winter semester only.

Prerequisites: GRM 312 or equivalent

GRM 421, 422 The Age of Goethe and Goethe's Faust (4 credits each)

GRM 421 deals with representative works of Goethe (exclusive of *Faust*), Schiller, and their contemporaries, which exemplify the intellectual and artistic currents of the Enlightenment, Storm and Stress, and Classicism.

GRM 422 is a detailed study of *Faust I and II*, its position in German literature, and its importance as a masterpiece of world literature. Conducted in German and offered in alternate years.

Prerequisite: GRM 372.

GRM 431 German Romanticism and Realism (4 credits)

The literature of Romanticism and Poetic Realism, a study of the origin and development of these movements in the light of the political and philosophic background of the age, with special emphasis on the lyric poetry of Romanticism, the dramas of Kleist, Grillparzer, and Hebbel, and the *Novelle* of Poetic Realism. Conducted in German.

Prerequisite: GRM 372.

GRM 434 Naturalism, Impressionism, Expressionism (4 credits)

German literature of the era 1880-1920, with analysis of selected texts from these periods. Conducted in German and offered in alternate years.

Prerequisite: GRM 372.

GRM 451 Modern Prose Fiction (4 credits)

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

Prerequisite: GRM 372.

GRM 461 Advanced Composition and Composition (4 credits)

Intensive oral work designed to perfect conversational ability, with emphasis on phonetics and diction. Extensive written work to increase the student's skill in original composition. Analysis of style in selected passages from German authors. Strongly recommended for all students, especially those planning to teach at the elementary level. Required for secondary teaching majors. Offered in the Winter Semester.

Prerequisite: GRM 312.

ARTS AND SCIENCES

GRM 480 Germanistisches Proseminar (4 credits)

Intensive investigation of some special aspects of German literature, stressing research and independent study.

Prerequisites: Major standing in German and permission of the instructor.

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

Directed individual research and reading designed for advanced German majors. May be taken for one or more semesters.

Prerequisite: Permission of the Department.

Hebrew Language

HBR 114-115 First Year Hebrew (5 credits each)

Devoted to aural-oral adaptation, the study of fundamental speech patterns, practice in writing, and the reading of graded texts. Not ordinarily open to students who have had two or more years of secondary school preparation.

HBR 214-215 Second-Year Hebrew (5 credits each)

Devoted to aural-oral adaptation. Review of grammar essentials and more intensive practice in developing speaking and writing skills combined with reading of literary and cultural texts.

Prerequisites: HBR 115 or permission of the instructor.

Hindi-Urdu Language

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

An introduction to the basic structure of both Hindi and Urdu with an emphasis on both conversation and reading. The course will stress the core vocabulary common to both languages; in addition, both Devanāgarī 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 or permission of the instructor.

URD 311-312 Urdu Composition and Conversation (4 credits each)

Devoted to increasing the student's command of the language and familiarizing him with idiomatic Urdu. Intensive practice in oral and written composition as well as

ARTS AND SCIENCES

translation. Techniques of textual analysis and exposition are introduced. Conducted primarily in Urdu.

Prerequisites: Urdu 215 or permission of the instructor.

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

Directed individual research and reading designed for advanced Hindi-Urdu majors. May be taken for one or more semesters.

Prerequisite: Permission of the department.

Italian Language

IT 114-115 First-Year Italian (5 credits each)

The study of fundamental patterns, written exercises, and the reading of graded texts. Extensive oral practice.

IT 214-215 Second-Year Italian (5 credits each)

Conversation and composition based on contemporary readings in Italian literature, including cultural material.

Prerequisites: Italian 114-115 or its equivalent.

Portuguese Language

POR 114-115 First Year Portuguese (5 credits each)

Devoted to intensive aural-oral adaptation, the study of fundamental speech patterns, practice in writing, and the reading of graded texts. Brazilian Portuguese is emphasized. Not ordinarily open to students who have had two or more years of secondary school preparation. Admission contingent upon departmental testing and interview. To be followed by POR 214.

POR 214 Intermediate Portuguese (5 credits)

Devoted to aural-oral adaptation. More intensive practice in developing speaking and writing skills combined with reading of literary and cultural texts. Brazilian Portuguese is emphasized.

Prerequisites: POR 114-115, or departmental testing and interview.

POR 390 Directed Readings in Portuguese (2 or 4 credits)

A reading course for students interested in research in a particular Portuguese-language area. Especially suited to Area Studies majors. Bibliography to be determined by students and instructor. Discussions in Portuguese or English. Paper optional. May be repeated for credit.

Prerequisites: POR 214 or permission of the department.

Russian Language and Literature

RUS 101-102 Elementary Reading in Russian (4 credits each)

Designed to help students acquire a reading knowledge of Russian. Elements of grammar, extensive reading of graded texts. Recommended for students in Area Studies. Students planning to major should take Russian 114-115. Offered every year. To be followed by Russian 201-202.

ARTS AND SCIENCES

RUS 114-115 First Year Russian (5 credits each)

Devoted to aural-oral adaptation, the study of fundamental speech patterns, practice in writing, and the reading of graded Russian texts. Not ordinarily open to students who have had two or more years of secondary school preparation.

RUS 201-202 Intermediate Reading in Russian (4 credits each)

Continued development of reading skill. Materials in cultural, literary, or scientific areas, chosen according to class interests. Recommended for students in Area Studies. Students planning to major in Russian should take 214-215. Offered every year. Prerequisites: RUS 102 or 115, or equivalent.

RUS 214-215 Second Year Russian (5 credits each)

Review of grammar essentials and more intensive practice in developing speaking and writing skills combined with reading of literary and cultural texts.

Prerequisites: RUS 115 or evidence of proficiency and permission of the Department.

RUS 285 Masterpieces of Nineteenth Century Russian Literature in English Translation (4 credits)

A study of the writings of Pushkin, Lermontov, Gogol, Turgenev, Dostoevsky and Tolstoy as a reflection of cultural developments in Russia in the nineteenth century. Lectures and readings in English. Open to Russian majors as elective only; does not carry credit toward departmental major.

Prerequisites: Sophomore standing or permission of the instructor.

RUS 286 Masterpieces of Modern Russian Literature in English Translation (4 credits)

A study of the major literary movements in Russian in the post-revolutionary period from the Symbolists to Solzhenitsyn. Lectures and readings in English. Open to Russian majors as elective only; does not carry credit toward departmental major.

Prerequisites: Sophomore standing or permission of the instructor.

RUS 287 Tolstoy in English Translation (2 credits)

An examination of the major novels and shorter works, including their religious, philosophical and psychological significance. Lectures and readings in English. Open to Russian majors as elective only; does not carry credit toward departmental major.

Prerequisites: Sophomore standing or permission of the instructor.

RUS 288 Dostoevsky in English Translation (2 credits)

An examination of the major novels, short novels and journalistic writings with regard to their literary, philosophical, religious and psychological content. Lectures and readings in English. Open to Russian majors as elective only; does not carry credit toward departmental major.

Prerequisites: Sophomore standing or permission of the instructor.

RUS 290 Directed Readings in Russian (2 or 4 credits)

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

Prerequisites: RUS 215 or permission of the Department.

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

Devoted to increasing the student's command of the language and familiarizing him with idiomatic Russian. Intensive practice in oral and written composition as well as

ARTS AND SCIENCES

translation. Techniques of textual analysis and exposition. Conducted primarily in Russian.

Prerequisites: RUS 215 or evidence of proficiency and permission of the Department. Especially qualified freshmen may be admitted.

RUS 365 Applied Linguistics of Russian (4 credits)

An introduction to modern linguistic insights with particular reference to their application in the understanding and teaching of the contemporary language; a brief survey of the nature of the linguistic changes underlying the development of modern Russian. Required for secondary teaching majors. Offered in the Winter Semester. Identical with LIN 365.

Prerequisites: RUS 312 or permission of the instructor.

RUS 371, 372 Introduction to Russian 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. Offered in alternate years.

Prerequisites: RUS 372, or RUS 462, or permission of the Department.

RUS 426 Russian Poetry of the First Half of the Nineteenth Century (4 credits)

Major Russian poets from the first part of the nineteenth century: Zhukovsky, Batyushkov, Delvig, Baratynsky, and Yazykov, with emphasis on Pushkin. Conducted in Russian and offered in alternate years.

Prerequisite: RUS 372.

RUS 427 Russian Poetry of the Second Half of the Nineteenth Century (4 credits)

Poetry of the second part of the nineteenth century: Tyutchev, Fet, A. Tolstoy, and Nekrasov, with special emphasis on Lermontov and his influence. Conducted in Russian and offered in alternate years.

Prerequisite: RUS 372.

RUS 434 Russian Realism (4 credits)

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

Prerequisite: RUS 372.

RUS 435 Chekhov and His Time (4 credits)

Devoted mainly to Chekhov's prose but includes other prose writers of the time such as Garshin, Korolenko, Gorky. Conducted in Russian and offered in alternate years.

Prerequisite: RUS 372.

RUS 441 Tolstoy (4 credits)

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

Prerequisite: RUS 372.

ARTS AND SCIENCES

RUS 442 Dostoevsky (4 credits)

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

Prerequisite: RUS 372.

RUS 451 Modern Russian Prose (4 credits)

Selected prose works from the beginning of the twentieth century. Included are works of pre-revolutionary, Soviet, and emigré authors. Conducted in Russian and offered in alternate years.

Prerequisite: RUS 372.

RUS 461-462 Advanced Composition and 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 101-102 Elementary Reading in Spanish (4 credits each)

Designed to help students acquire a reading knowledge of Spanish. Elements of grammar, extensive reading of graded texts. Admission contingent upon departmental testing. To be followed by SPN 201-202. Not open to prospective majors.

SPN 114-115 First Year Spanish (5 credits each)

Devoted to aural-oral adaptation, the study of fundamental speech patterns, practice in writing, and the reading of graded texts. Not ordinarily open to students who have had two or more years of secondary school preparation. Admission contingent upon departmental testing. To be followed by SPN 214-215.

SPN 201-202 Intermediate Reading in Spanish (4 credits each)

Continued development of reading skill, extensive readings in cultural and literary texts, and unedited materials of various kinds.

Prerequisites: SPN 102 or placement by departmental testing. Not open to prospective majors.

SPN 214-215 Second Year Spanish (5 credits each)

Devoted to aural-oral adaptation. Review of grammar essentials and more intensive practice in developing speaking and writing skills combined with reading of literary and cultural texts.

Prerequisites: SPN 115 or an appropriate score on a placement examination.

ARTS AND SCIENCES

SPN 285, 286 Survey of Spanish and Latin American Literature (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 or permission of the Instructor.

SPN 290 Directed Readings in Spanish (2 or 4 credits)

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

Prerequisites: SPN 202 or SPN 215, or permission of the Department.

SPN 300 Composition and Conversation (4 credits)

For overseas study program only. At third or fourth year level depending on student preparation.

Prerequisites: SPN 215 or permission of the Instructor.

SPN 311-312 Spanish Composition and 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.

Prerequisites: Sophomore standing or permission of the Instructor.

SPN 365 Applied Linguistics of Spanish (4 credits)

An introduction to modern linguistic insights with particular reference to their application in the understanding and teaching of the contemporary language; a brief survey of the nature of the linguistic changes underlying the development of modern Spanish. Required for secondary teaching majors. May not be taken to fulfill requirements for the liberal arts major, except by majors with a concentration in linguistics. Identical with LIN 365.

Prerequisites: SPN 312 or permission of the Instructor.

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

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

ARTS AND SCIENCES

reports in Spanish.

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

SPN 401 Literature of the Spanish Middle Ages 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.

Prerequisites: Major standing in Spanish and permission of the Instructor.

SPN 485 Senior Tutorial Readings (4 credits)

Readings, lectures, discussions based on departmental reading list for Spanish majors. Required of senior students, not open to others.

Prerequisites: Major standing in Spanish and permission of the Department.

ARTS AND SCIENCES

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

Directed individual research and reading designed for advanced Spanish majors. May be taken for one or more semesters.

Prerequisite: Permission of the Department.

SPN 499 Honors Course in Spanish (4 credits)

An introduction to scholarly techniques as applied to a work, an author, or a genre. Admission by permission of the Department.

Swahili Language

SWA 114-115 First Year Swahili (5 credits each)

An introduction to the basic structure of Swahili with an emphasis on both conversation and reading.

SWA 214-215 Second Year Swahili (5 credits each)

A continuation of SWA 114-115 with increasing emphasis on reading and composition. Prerequisites: SWA 114-115 or permission of the Instructor.

SWA 270 Readings in Swahili (4 or 8 credits)

Study of selected texts pertaining to different aspects of Swahili cultural life. May be conducted as a tutorial and may be repeated for credit.

Prerequisites: SWA 215 or permission of the Instructor.

Modern Language

ML 191-192 Tutorial in Foreign Language (4 credits each)

Instruction in the elements of a spoken or written foreign language such as Arabic, Bengali, Czech, Japanese, Sanskrit, Hausa, etc. for which no regular course sequence exists here.

May be repeated for credit in a different language each time.

ML 497 Apprentice College Teaching (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 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.

ARTS AND SCIENCES

DEPARTMENT OF MUSIC

Associate Professors:	David DiChiera, Chairman Raynold Allvin David Daniels Robert Facko
Assistant Professors:	Marvin Holladay Lyle Nordstrom Clifford Pfeil
Special Instructors:	Richard Conrad John Dovaras Alice Engram
Visiting Lecturer:	Flavio Varani
Applied Music Instructors:	Paul Allen, (trumpet) Arthur Bachmann (cello) Tom Bacon, (French horn) Douglas Cornelsen, (clarinet) Robert Cowart (oboe) Joe Fava (guitar) LeRoy Fenstermacher (viola) Norman Fickett, (percussion) Derek Francis, (violin) Robert Gladstone (string bass) Wesley Jacobs, (tuba) Jack Kripl, (saxophone) Kent McDonald (piano/organ) Ervin Monroe (flute) Emilia Cundari (voice) Frank Preuss (violin) Vivian Scott, (piano) Evelyn Sun (piano) Raymond Turner, (trombone)

The Department of Music is committed to the continuous evolution and expansion of the entire music program and to the active participation of students in this evolution. The music department's New Curriculum — designed by faculty and students together — is unique in many respects. For this reason, it is absolutely necessary to read the MUSIC HANDBOOK (available from the music office, room 312 PA) and to consult with a departmental advisor before beginning a music degree program. Note that all new

and transfer students are expected to audition during the first week of classes in order to qualify for their chosen performing medium.

The Certificate System

The Department of Music uses a certificate system designed to enable majors to devise their own means of study, and to a considerable extent, their own course of study. Under this system, levels of achievement are required, but, with a few exceptions, courses and course sequences in the Department are not. Students may work toward the levels of achievement in a variety of ways: by taking advantage of the courses offered, or by independent study, or by combining course study with independent study.

To help students plan their course of study and determine their means of study, the music department publishes samples of the certificate examinations. It is the eventual passing of these certificate examinations, rather than the following of a particular sequence of departmental courses, that is required for any music major. The examinations also serve diagnostically: if students do not achieve the required level of proficiency, the results identify the areas they need to study before trying again.

For general education requirements for graduation see pp. 90-107.

Programs of Study

There are three degree programs now available for music majors:

1. **Bachelor of Arts in Music:** This degree involves 48 credits of music, and the successful completion of five certificates: Basic Materials of Music, Theory, Ear Training, Music History and Literature, and Performance.
2. **Bachelor of Science in Music:** A more intensive pre-professional training. 72 credits of music, and the successful completion of nine certificates: the five required for the B.A. degree plus Performance Minor, Keyboard Proficiency, and two elective certificates of the student's choice, such as Advanced Theory, Composition, Advanced Music History, Instrumental Studies, Choral Studies, Church Music, Pedagogy, and Performance Honors. With the approval of the Department, students may design highly individualized certificates to suit their own personal interests and goals.

ARTS AND SCIENCES

3. Bachelor of Science in Music Education: For the prospective public school teacher. This program involves elementary and secondary teaching certification by the State of Michigan. 60 credits of music (plus practice teaching and the education courses and teaching minor required by the state) and the successful completion of nine certificates: the five required for the B.A. degree plus Performance Minor, Keyboard Proficiency, Music Education, and either Instrumental Studies or Choral Studies.

All the above mentioned certificates are described in detail in the Music Handbook.

Symbolic Systems Requirement

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

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

Courses taken to satisfy this departmental requirement may also count toward the General Education Requirement and/or the Secondary Teaching Minor.

MUS 100 Introduction to Music (4 credits)

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

MUS 101 University Chorus (1 or 2 credits)

MUS 102 Oakland Singers (2 credits)

ARTS AND SCIENCES

- MUS 103 Collegium Musicum (1 or 2 credits)**
Performance of Renaissance and Baroque chamber music. Present groups include the Renaissance Wind Band (recorders, krummhorns, brass, and percussion) and various small ensembles combining voices and instruments.
- MUS 104 University Concert Band (1 or 2 credits)**
- MUS 105 Opera Workshop (1, 2 or 3 credits)**
- MUS 106 University Orchestra (1 or 2 credits)**
- MUS 111 Beginning Musicianship (4 credits)**
An introduction to the techniques of reading and writing music, notation, pitch, and rhythmic organization, elementary sight singing, dictation, and keyboard familiarity. An elective course for non-music majors.
- MUS 120 Ear Training (2 credits)**
- MUS 149 Music as an Art and as an Elementary School Subject (5 credits)**
An introduction to the techniques of listening to music and of teaching music in the elementary school. Begins at a level for the student lacking previous musical experience. Substitutes for UC 049 for general elementary education majors.
- *MUS 160 Voice (2 credits)**
- *MUS 161 Piano (2 credits)**
- *MUS 162 Organ (2 credits)**
- *MUS 163 Harpsichord (2 credits)**
- *MUS 164 Violin (2 credits)**
- *MUS 165 Viola (2 credits)**
- *MUS 166 Violoncello (2 credits)**
- *MUS 167 String Bass (2 credits)**
- *MUS 168 Flute (2 credits)**
- *MUS 169 Oboe (2 credits)**
- *MUS 170 Clarinet (2 credits)**
- *MUS 171 Bassoon (2 credits)**
- *MUS 172 French Horn (2 credits)**
- *MUS 173 Trumpet (2 credits)**
- *MUS 174 Trombone (2 credits)**
- *MUS 175 Tuba (2 credits)**

ARTS AND SCIENCES

*MUS 176	Timpani	(2 credits)
*MUS 177	Percussion	(2 credits)
*MUS 178	Harp	(2 credits)
*MUS 179	Guitar (Classical)	(2 credits)
*MUS 180	Renaissance Winds	(2 credits)
Instruments include krummhorns, recorders, etc.		
*MUS 181	Viola da Gamba	(2 credits)
*MUS 182	Lute	(2 credits)
*MUS 183	Recorder	(2 credits)
*MUS 184	Saxophone	(2 credits)

*Private lessons presently offered to music majors and to other music students at the discretion of the Department.

MUS 210 Introduction to the Materials of Music (5 credits)

The development of perceptive listening techniques and an awareness of musical styles. Solution of musical problems in written work and laboratory sessions. Beginning ear training and the rudiments of tonal harmony.

MUS 295 Independent Study (2, 4, 6, 8, 10, 12 credits)

Prerequisite: Permission of the Department.

MUS 310 Harmony (4 credits)

The harmonic practice of the eighteenth and early nineteenth centuries. Composition and analysis in this style.

Prerequisites: MUS 210 or permission of the Instructor.

MUS 314 Form in Tonal Music (4 credits)

Tonality as a force in musical structure; the forms of the seventeenth through nineteenth centuries. Analysis of many works and composition using tonal idioms.

Prerequisites: MUS 210 or permission of the Instructor.

MUS 315 Tonal Counterpoint (4 credits)

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

Prerequisites: MUS 210 or permission of the Instructor.

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

History and literature of music through the Baroque period. Designed primarily for music majors. Offered each Fall Semester.

Prerequisites: MUS 210 or permission of the Instructor.

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

History and literature of music from 1750 to the present. Offered each Winter Semester. Designed primarily for music majors.

Prerequisites: MUS 210 or permission of the Instructor.

ARTS AND SCIENCES

- MUS 331 Opera and Music Drama (4 credits)**
A study of music drama from the lyric drama of the ancient Greeks to the present. Suggested as an elective for non-music majors.
Prerequisites: MUS 210 or permission of the Instructor.
- MUS 332 Symphonic Music (4 credits)**
A study of symphonic music from the pre-classic compositions of C.P.E. Bach to the present. Suggested as an elective for non-music majors.
Prerequisites: MUS 210 or permission of the Instructor.
- MUS 333 Choral Music (4 credits)**
A study of choral music from the beginnings of choral polyphony in the early fifteenth century to the present. Suggested as an elective for non-music majors as well as for music majors.
Prerequisites: MUS 210 or permission of the Instructor.
- MUS 342 Music in the Baroque Era (4 credits)**
A study of significant forms, composers, and nationalistic trends in the Baroque era. Suggested as an elective for non-music majors.
Prerequisites: MUS 210 or permission of the Instructor.
- MUS 345 Twentieth Century Music (4 credits)**
A study of significant styles and composers from Debussy to the present. Suggested as an elective for non-music majors.
Prerequisites: MUS 210 or permission of the Instructor.
- MUS 346 The Music of Black Americans (4 credits)**
Contributions of the black race to the development of music in the United States. Investigation of the elements of African musical style in Afro-American music. What is black musical idiom? Folksong—secular and sacred. Formal composition. Popular forms of music. Recommended as an elective for non-music majors as well as music majors.
- MUS 360 Class Voice (2 credits)**
Elementary aspects of singing for non-voice majors, including diction, breath control, projection, and repertoire.
- MUS 365 Class Recorder (2 credits)**
- MUS 366 Class Viola da Gamba (2 credits)**
- MUS 367 Class Lute (2 credits)**
- MUS 368 Class Renaissance Winds (2 credits)**
- MUS 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 371-372-373-374 Keyboard Technique (2 credits each)**
Designed to develop the basic keyboard facility essential to the equipment of any musician and to acquaint him with keyboard literature. Music majors planning to register for this course should indicate such intention to the Department of Music at the time of their first registration in the University. Normally offered each semester.
Prerequisite: Permission of the Instructor.

ARTS AND SCIENCES

MUS 380 Instrumental Methods (Strings) (2 credits)

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

MUS 381 Instrumental Methods (Woodwinds) (2 credits)

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

MUS 382 Instrumental Methods (Brass and Percussion) (2 credits)

Designed to provide the teacher with basic facilities and pedagogical techniques for the brasses and percussion.

MUS 401 Teaching Music in Elementary Schools (2 credits)

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

Prerequisites: MUS 210 and a 300-level theory course, or permission of the Instructor.

MUS 402 Teaching Music in Secondary Schools (2 credits)

The content and organization of the complete secondary school curriculum and the role music assumes in it, including place and function of performing groups, general music, music appreciation, music theory, and musical production. Coordination of the music program with other subject areas such as English, social studies, drama. Selection of appropriate repertoire and development of the school music library.

Prerequisites: MUS 210 and a 300-level theory course, or permission of the Instructor.

MUS 403 Conducting Choral Music in Secondary Schools (2 credits)

The organization and conducting of choral music in junior and senior high schools. The development of the adolescent and young adult voice. Problems of selection of repertoire. The selected choir, the mixed chorus, glee clubs, madrigal groups, and other small vocal ensembles. Historical style in choral singing, choral festivals and contests.

Prerequisites: MUS 210 and a 300-level theory course, or permission of the Instructor.

MUS 404 Conducting Instrumental Music in Secondary Schools (2 credits)

The organization and conducting of instrumental music in junior and senior high schools. Repertoire, materials, and techniques of secondary school orchestras, bands, stage bands, and ensembles. Pedagogical principles appropriate to individual or group instruction.

Prerequisites: MUS 210 and a 300-level theory course, or permission of the Instructor.

MUS 410 Advanced Harmony (4 credits)

Harmonic practice of the late nineteenth and early twentieth centuries; composition and analysis in this style.

Prerequisites: Either MUS 310, 314, or 315.

MUS 411 Orchestration (4 credits)

A study of the orchestral instruments and their use in various combinations, including full orchestra and band.

Correlative courses: MUS 380, 381, 382, 404, 412.

Prerequisites: Either MUS 310, 314, or 315.

ARTS AND SCIENCES

- MUS 412 Twentieth Century Techniques (4 credits)**
Compositional practices in the twentieth century; composition and analysis.
Prerequisites: Either MUS 310, 314, or 315.
- MUS 415 Modal Counterpoint (4 credits)**
The contrapuntal style of the sixteenth century. Analysis and composition in this style. Offered in alternate years.
Prerequisites: Either MUS 310, 314, or 315.
- MUS 420 Performance Seminar (2 credits)**
The performance of specific works as it is affected by theoretical analysis and stylistic-historical considerations.
Prerequisite: Completion of the theory certificate; MUS 321 and 322 recommended.
- MUS 430 Music of the Religious Service (4 credits)**
The philosophical and psychological bases of music in religious services. Service planning and arranging, traditional and experimental, using various media of sound production and multiple sensory methods. The effect of music on sacred texts.
- MUS 441-442 Music Pedagogy (4 credits each)**
Principles of music instruction for the studio teacher. The first semester will be devoted to a survey of the field and to observation. The second semester will be devoted to supervised teaching.
- MUS 490 Introduction to Music Bibliography (4 credits)**
A course designed primarily for the music history and literature major. A rigorous and systematic introduction to basic research materials and methodology in musicology.
Prerequisites: MUS 321, 322, and a 400-level theory course.
- MUS 491 Directed Research in Music History (4 credits)**
A program of directed individual reading and research designed for advanced music history majors.
Prerequisites: MUS 321, 322, and a 400-level theory course.
- MUS 492-493 Composition (4 credits each)**
Private lessons in composition and composition seminar dealing with the materials, techniques, and philosophies of contemporary music. May be repeated for credit.
Prerequisites: MUS 412 or permission of the instructor.
- MUS 494 Directed Research in Music Education (2 or 4 credits)**
A program of directed individual reading and research in technology of, innovation in, and psychology of music instruction.
Prerequisites: Two courses from the series MUS 401, MUS 402, MUS 403, and MUS 404, or permission of the instructor.
- MUS 495 Independent Study (2, 4, 6, 8, 10, or 12 credits)**
Prerequisite: Permission of the Department.
- MUS 497 Apprentice College Teaching (2 credits)**
Supervised participation in the teaching of an under-graduate course in music, together with discussion of teaching methods and objectives.
Prerequisite: Permission of Department.

ARTS AND SCIENCES

DEPARTMENT OF PHILOSOPHY

Professor:	Richard J. Burke, Chairman
Associate Professors:	Richard W. Brooks Alfred Lessing (On leave Winter, 1973)
Assistant Professor:	John Immerwahr Roselyn S. Sherman-Lessing (On leave Winter, 1973)
Instructors:	Jack A. Cumbee Julian Weitzenfeld (On leave Winter, 1973)
Adjunct Faculty Professor:	Charles E. Morton

Philosophy is one of the oldest, often one of the least understood of the liberal arts. The philosopher is interested in all aspects of human life, searching for the greatest possible clarity concerning the most fundamental questions. There is no one kind of philosophy; there are many kinds, each with its own value. Philosophy has always served two functions: the first is speculative, the attempt to formulate illuminating generalizations about science, art, religion, nature, society, and any other important topic; the second is critical, the unsparing examination of its own generalizations and those of others to uncover unfounded assumptions, faulty thinking, hidden implications, and inconsistencies. The study of philosophy is designed to encourage a spirit of curiosity, a sensitivity toward the uses of words, a sense of objective assessment toward oneself as well as others. Competence in philosophy is solid training for advanced study in such fields as law, government, and public administration, as well as the ministry and teaching.

The Department of Philosophy offers programs of study leading to the degree of Bachelor of Arts with liberal arts major in philosophy, modified major, major in philosophy with concentration in area studies, and major in philosophy with concentration in linguistics. Majors in these programs may complete their general education requirement through courses chosen from departmental offerings, from University courses, or in the programs of Allport College, Charter College, or New College.

The Department of Philosophy accepts all options open to students for satisfying the College symbolic systems requirement.

Requirements for the Liberal Arts Major in Philosophy

Nine departmental courses (36 credits) are required, including PHL 101. The Department also offers a modified major in phil-

ARTS AND SCIENCES

osophy, modelled on the concentrations described below but tailored to the interests of the individual student. Such a modified major must include at least 24 credits in philosophy and will normally supplement these with at least 20 credits from one or more other departments, chosen to form a coherent program with the philosophy courses taken. This program must have the support of one member of the Department of Philosophy, who will serve as adviser; and it must be approved by the chairman, normally by the end of junior year. Formal admission to major standing requires the satisfactory completion of at least one philosophy course at the 200 level.

Departmental Course Prerequisites

All 100-level courses have no prerequisites; 200-level courses require sophomore standing, or one previous course in philosophy; 300-level courses require PHL 101, unless another course is indicated in the course description. Prerequisites may always be waived by permission of the instructor.

Departmental Honors

Students who think they might qualify for departmental honors should submit an example of their philosophical writing to the chairman early in the semester before they expect to graduate. This should normally be a substantial paper written in PHL 395, but two or three papers written in other courses will be acceptable. If this work is judged to be of sufficiently high quality, it will be read by the rest of the Department, and a conference to discuss it with the student will be arranged. Departmental honors are thus based upon written and oral achievement in philosophy, as well as general performance in courses.

Requirements for the Major in Philosophy with Concentration in Area Studies

(East Asian Studies or South Asian Studies)

Six departmental courses (24 credits) are required, including PHL 101, and PHL 351 (for East Asian Studies) or PHL 352 (for South Asian Studies). For requirements in area studies, see pp. 266-274.

ARTS AND SCIENCES

Requirements for the Major in Philosophy with Concentration in Linguistics

Six departmental courses (24 credits) are required, including PHL 101, PHL 370, and PHL 375. For requirements in linguistics, see p. 179.

PHL 101 Introduction to Philosophical Thinking (4 credits)

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

PHL 102 Introduction to Logic (4 credits)

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

PHL 103 Introduction to Ethics (4 credits)

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

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

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

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

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

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

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

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

PHL 219 Aesthetics (4 credits)

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

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

The meanings of central concepts in political philosophy, 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.

ARTS AND SCIENCES

PHL 250 Philosophies and Religions of Asia (4 credits)

A study of the major religions of India, China, and Japan with emphasis on their philosophical significance. The course will cover Hinduism, Jainism, Confucianism, Taoism, and Buddhism (with special reference to Ch'an or Zen), and will deal with both the ancient traditions and some modern developments. Offered every year.

PHL 260 American Philosophy (4 credits)

An historical survey of American Philosophy, from its beginnings in New England puritanism to the present day. Emphasis on Peirce, James, and Dewey. Offered every other year.

Prerequisites: Sophomore standing or one previous course in philosophy.

PHL 317 Recent Theories of Ethics (4 credits)

Theories of ethics and meta-ethics of the twentieth century, with emphasis on the analysis of ethical statements. Typical problems considered include the possibility of supporting ethical claims, the place of reason, emotion, and persuasion in ethics, and ethical relativism. Offered every other year.

Prerequisite: PHL 101. Recommended: PHL 103.

PHL 325 Philosophy of Religion (4 credits)

Examination of arguments for and against the existence of God, the nature of religious language, the relations between religion and philosophy. Offered every other year.

Prerequisite: PHL 101.

PHL 329 Philosophy of Science (4 credits)

A study of the philosophical problems arising from critical reflection on the sciences. Typical topics: the structure of scientific explanation, the nature of scientific laws and theories, causality, confirmation. Some notation from formal logic will be used. Offered every other year.

Prerequisites: PHL 101, and at least one course in physical science, either in high school or in college.

PHL 333 Theories of Knowledge (4 credits)

Critical examination of knowledge claims and of the types of justification given in their support. Typical topics are scepticism, empiricism, rationalism; the relations between sensations, images, and concepts; meaning and truth; believing and knowing; 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. 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.

ARTS AND SCIENCES

PHL 351 Chinese Philosophy (4 credits)

Systematic study of the rise and development of Chinese philosophy, with emphasis on the classical (Chou) period. Confucianism, Taoism, Mohism, Legalism, the "Hundred Schools." The impact of Buddhism on Chinese philosophical thinking will be examined with special reference to the growth of Ch'an (Zen) Buddhism. Offered every other year.

Prerequisite: PHL 101. Recommended: PHL 250.

PHL 352 Indian Philosophy (4 credits)

An examination of the presuppositions and doctrines of India's major philosophic systems. Both Indian logic and metaphysical speculation will be covered. Realistic, idealistic, pluralistic, dualistic, and monistic systems will be considered, with some reference to contemporary developments. Offered every other year.

Prerequisite: PHL 101. Recommended: PHL 250.

PHL 355 Existentialism (4 credits)

A study of several different types of existentialist philosophy, ranging from Kierkegaard to Sartre and Heidegger. Some attention may also be given to phenomenology. Offered every other year.

Prerequisite: PHL 101.

PHL 357 Contemporary Analytic Philosophy (4 credits)

A study of the main forms of twentieth century analytic philosophy and those philosophers who have had most influence in shaping it. Offered every other year.

Prerequisite: PHL 101.

PHL 365 Topics in Philosophy (4 credits)

A study of one philosophic topic or problem which cuts across the usual divisions of the field. Offered every year. The instructor will announce the topic to be studied in the schedule of classes, and any prerequisites.

PHL 370 Symbolic Logic (4 credits)

A study of first-order symbolic logic, emphasizing quantificational theory and possibly including identity theory, set theory, and an introduction to logical metatheory. Should involve some inquiry into the philosophical foundations of logical theory. Offered every year.

Prerequisite: PHL 102 or one course in mathematics.

PHL 375 Philosophy of Language (4 credits)

An inquiry into philosophical questions concerning the nature of natural language, with emphasis on the problem of meaning. Some consideration of the status of appeals to language in philosophical argument. Offered every other year.

Prerequisites: PHL 101 or 102 and LIN 176 or 301. Recommended: PHL 357, PHL 370.

PHL 382 Ancient and Medieval Philosophers (4 credits)

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

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

PHL 383 Modern Philosophers (4 credits)

An intensive study of the works of one major philosopher of the period from 1600

ARTS AND SCIENCES

to the present. The specific philosopher to be considered will vary from year to year. May be repeated for credit. Offered every year.

Prerequisite: PHL 101. Recommended: PHL 206 or 207, depending on the philosopher studied.

PHL 390 Directed Readings in Philosophy (2 credits)

A tutorial, 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.

PHL 395 Independent Study in Philosophy (4 credits)

Essentially the same as PHL 390, but in addition to reading and consultation with an instructor, the student will be expected to do some writing, normally including a substantial term paper.

Prerequisite: PHL 101.

ARTS AND SCIENCES

DEPARTMENT OF PHYSICS

Professors: Abraham Liboff, Chairman
John M. McKinley
Ralph C. Mobley
Robert M. Williamson

Associate Professors: Norman Tepley
Paul A. Tipler

Assistant Professors: Granvil C. Kyker, Jr.
Marshall J. Sheinblatt
W. Donald Wallace

The Department of Physics offers comprehensive programs in basic physics leading to the degrees of Bachelor of Arts and Bachelor of Science. Each curriculum provides a solid foundation in both classical and modern physics. The Bachelor of Science degree major in physics is intended primarily for students who plan to become professional scientists and qualifies them for graduate studies in the physical sciences or for research positions in government and industry. The Bachelor of Arts degree major in physics is intended primarily for students with broader interests, who desire a less specialized background in physics, as for example, students who plan to take graduate work in a non-science field, to enter the medical profession, or teach in secondary schools. The Bachelor of Arts degree program does not necessarily preclude a professional career in science if the student elects to supplement the program requirements with additional courses.

The Department of Physics offers programs of study at the graduate level leading to the degree of Master of Science. For further information on the graduate program, see the *Graduate Bulletin*.

Requirements for the Bachelor of Science Major in Physics

- (a) 30 credits in physics courses at or above the 300 level, including either PHY 371 (Modern Physics) or PHY 472 (Quantum Mechanics I).
- (b) PHY 158 Laboratory.
- (c) 16 credits of mathematics, at a level not below MTH 154.
- (d) 8 credits of Chemistry, at a level not below CHM 114.
- (e) 2 credits of computer programming, or equivalent experience.
- (f) Fulfillment of all other University graduation requirements.

Requirements for the Bachelor of Arts Major in Physics

- (a) 52 credits in physics, mathematics or chemistry of which,
- (b) at least 32 credits shall be in physics of which,
- (c) at least 22 credits shall be in courses with numbers above 200.
- (d) Fulfillment of all other University graduation requirements.

Requirements for the Secondary Teaching Major in Physics

ED 244, 245, 428, 455 in addition to the requirements for the Bachelor of Arts major in physics.

Requirements for the Secondary Teaching Minor in Physics

Twenty credits in physics are required.

Bachelor of Science Major in Physics

(A Typical Program)

Fall

Semester 1

CHM 114

CHM 117

MTH 154

Distribution Requirement**

Learning Skills or

Distribution Requirement**

Fall

Semester 3

PHY 152

PHY 158

MTH 254

Computer Prog.*

Distribution Requirement**

Fall

Semester 5

PHY 318

PHY 331

PHY 348

PHY 371

Distribution Requirement**

Winter

Semester 2

PHY 151

CHM 115

CHM 118

MTH 155

Learning Skills or

Distribution Requirement**

Winter

Semester 4

PHY 341

PHY 347

PHY 361

MTH 255

PHY 317

Winter

Semester 6

PHY 381

MTH 431***

Distribution Requirement**

Distribution Requirement**

ARTS AND SCIENCES

Fall

Semester 7

PHY 421***

PHY 472***

PHY 490***

Elective

Winter

Semester 8

PHY 482***

PHY 490***

Elective

Distribution Requirement**

*Computer Programming (2 credits), EGR 180 or equivalent.

**For general education requirements, see pp. 90-98.

***Suggested electives for students planning graduate work in Physics.

Bachelor of Arts Major in Physics

(A Typical Program)

Fall

Semester 1

CHM 114

CHM 117

MTH 134

Distribution Requirement**

Learning Skills or

Distribution Requirement**

Fall

Semester 3

PHY 102*

MTH 155

Distribution Requirement**

Distribution Requirement**

Fall

Semester 5

PHY 202

Distribution Requirement**

Electives

Fall

Semester 7

PHY 318

PHY 371

Electives†

Winter

Semester 2

PHY 101*

CHM 115

CHM 118

MTH 154

Learning Skills or

Distribution Requirement**

Winter

Semester 4

PHY 158

PHY 201

MTH 254

Computer Prog.***

Distribution Requirement**

Winter

Semester 6

PHY 317

PHY 341

PHY 347

Distribution Requirement**

Elective†

Winter

Semester 8

Electives†

*Students who take MTH 154 in Semester 1 may wish to replace PHY 101-102 with PHY 151-152.

**For general education requirements, see pp. 90-98.

***EGR 180 (2 credits) or equivalent.

†Suggested electives in Physics: 331, 361, 381, 348, and 490.

ARTS AND SCIENCES

The following two-semester course, PHY 101-102 is open to all students and may be used by non-science majors to fulfill the general education requirement for the College of Arts and Sciences in Natural Sciences.

PHY 101-102 General Physics (4 credits each)

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

Prerequisites for PHY 101: High school algebra and trigonometry or MTH 134.

Prerequisites for PHY 102: PHY 101 or permission of the Instructor.

Each of the following two courses, PHY 104-105, may be used by non-science majors to fulfill the general education requirement for the College of Arts and Sciences in Natural Science.

PHY 104 Classical Astronomy (4 credits)

Early observations and theories. The universe as seen by Ptolemy and Copernicus and their concepts as refined by Brahe, Kepler, and Newton. Light and optical instruments. The earth—its place and motion in the universe. Time and seasons. The moon—its mass, size, composition, and motion—eclipses. The planets—their mass, size, composition, and motion. Manned and un-manned exploration of the moon and planets.

Prerequisite: High school algebra with some trigonometry desirable.

PHY 105 Modern Astronomy (4 credits)

Stellar astronomy—energy production in the sun and stars. Properties of starlight. Classification of stars. Radio astronomy. Stellar evolution. Gravitational collapse. New astronomical objects—quasars, pulsars, radio galaxies. The primeval fireball. Cosmology—origin, history, and future of the universe.

Prerequisite: High school algebra with some trigonometry desirable.

The following courses are designed primarily for the physics major and for other majors in the sciences and engineering.

PHY 151-152 Introductory Physics (4 credits each)

Mechanics, electricity and magnetism, wave motion, and optics for science, mathematics, and engineering students.

Corequisite for PHY 151 is MTH 154.

Corequisite for PHY 152 is MTH 155.

PHY 158 Introductory Physics Laboratory (2 credits)

Prerequisites: High school physics, PHY 101, or PHY 151; MTH 122 or MTH 154.

PHY 201 Classical Mechanics and Thermodynamics (4 credits)

Single particle mechanics: simple harmonic motion, gravitation, motion in a central force field. Dynamics of a system of particles: center of mass, linear momentum, angular momentum, kinetic energy, potential energy, collisions. Temperature.

ARTS AND SCIENCES

First law of thermodynamics, heat capacity, heat conduction, kinetic theory of an ideal gas. Second law of thermodynamics.

Prerequisites: MTH 154, and PHY 102 or PHY 152.

Corequisite: MTH 155.

PHY 202 Classical Electromagnetism and Light (4 credits)

Electric field, lines of force, conductors, capacity, dielectrics, current. Magnetic field. Inductance. Magnetic field in matter. Simple AC circuits. Electromagnetic waves. Reflection and refraction of plane waves.

Prerequisites: PHY 201, Calculus 155.

PHY 317-318 Intermediate Laboratory (2 credits each)

Optics, atomic physics, and nuclear physics experiments, shop techniques, vacuum systems, error analysis.

Prerequisite: PHY 158.

PHY 331 Optics (4 credits)

Geometrical optics, optical instruments, wave theory of reflection refraction, interference, diffraction, and polarization of light.

Prerequisites: PHY 152, MTH 155.

PHY 341 Electronics (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 361 Mechanics I (4 credits)

Applications of Newton's laws to particles, systems of particles, harmonic oscillators, central forces, accelerated reference frames, and rigid bodies.

Prerequisite: PHY 152.

Corequisite: MTH 254.

PHY 371 Modern Physics (4 credits)

Relativity, atomic physics, the experimental bases of quantum mechanics, and properties of nuclei.

Prerequisites: PHY 152, MTH 155.

PHY 381 Electricity and Magnetism I (4 credits)

The development of Maxwell's equations from the experimental laws of electricity and magnetism. Vector calculus, potential theory, boundary conditions on the electromagnetic field vectors, field energy, properties of dielectrics, conductors, and magnetic materials.

Prerequisites: PHY 152, MTH 254; MTH 255 desirable.

PHY 400 Seminar (1 credit per semester)

PHY 405 Special Topics (2, 4, 6, credits)

Prerequisite: Permission of the Department.

ARTS AND SCIENCES

PHY 417-418 Advanced Laboratory (2 credits each)

Methods of experimental physics. Experiments and projects in all areas of classical and modern physics, with emphasis on research techniques and detailed analysis of experimental data.

Prerequisites: PHY 317-318, 341, and 347-348, or equivalent.

Prerequisites or corequisites: PHY 331, 361, and 371, or equivalent.

PHY 421 Thermodynamics (4 credits)

The zeroth, first and second laws of thermodynamics with applications to pure substances. Introduction to the kinetic theory of gases and to statistical mechanics.

Prerequisites: PHY 151, MTH 254.

PHY 472 Quantum Mechanics I (4 credits)

Principles of non-relativistic quantum mechanics, Schrodinger wave equation, expectation values of energy, position, momentum and angular-momentum operators, spin, perturbation theory, identical particles—with applications to atomic systems.

Prerequisites: PHY 361, MTH 255.

PHY 482 Electricity and Magnetism II (4 credits)

Multipole fields, solutions of Laplace and Poisson equations, electromagnetic waves in insulators and conductors, the derivation of the laws of optics from Maxwell's equation.

Prerequisites: PHY 381, MTH 255.

PHY 490 Independent Study and Research (2, 4, or 6 credits)

Prerequisite: Permission of the Department.

Courses in physics on the 500 level are graduate courses available to well-prepared undergraduate students with permission of the Department.

PHY 542 Advanced Electronics (4 credits)

Selected topics in the analysis and design of electronic circuits.

Prerequisite: PHY 341.

PHY 548 Advanced Electronics Laboratory (2 credits)

Prerequisite: PHY 348.

PHY 562 Mechanics II (4 credits)

Methods of Lagrange and Hamilton, tensor algebra, rigid bodies in three dimensions, continuous media, and coupled systems.

Prerequisites: PHY 361, MTH 255.

PHY 573 Nuclear Physics (4 credits)

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

Prerequisite: PHY 472.

PHY 574 Introduction to Solid State Physics (4 credits)

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

Prerequisite: PHY 472 or equivalent.

ARTS AND SCIENCES

Other advanced graduate courses in physics described in the *Graduate Bulletin* are:

PHY 600	Seminar	(1 credit)
PHY 673	Quantum Mechanics II	(4 credits)
PHY 674	Quantum Mechanics III	(4 credits)
PHY 690	Research	(2 to 12 credits)

DEPARTMENT OF POLITICAL SCIENCE

Professors: Edward J. Heubel, Chairman
 Sheldon L. Appleton
 Thomas W. Casstevens
 Roger H. Marz
 John E. Rue

Assistant Professors: Susan G. Hadden
 James R. Ozinga

Instructors: Thomas W. Church
 L. Thomas Farley
 William D. Ice
 John S. Marks
 Arthur W. Wild

Associated Faculty

Professor: Carl R. Vann (On leave, 1972-1973)
 (Behavioral Sciences and Political Science)

Political science offers a concentrated and systematic study of politics at all levels of government and in many different cultural and national settings. Policy-making, law, administration, international politics, foreign governments, and theories and philosophies of government are among the many topics explicated by these courses. The general educational aim is to increase the student's awareness and understanding of the broad realm of politics and government. Many students electing this major wish to prepare for careers in public service, law, practical politics, or the teaching of government and social studies. The liberal arts degree is not designed as a vocational degree; however, there are course combinations and selections that are appropriate for students with such defined career objectives. These alternatives will be mentioned below.

Departmental honors are conferred upon graduates who successfully complete a PS 490 research project and paper at the honors level during their senior year. The student seeking honors should obtain the permission of the Department prior to registering for a 490 project. There are opportunities for advanced students to undertake independent readings and research under the PS 390 and PS 490 numbers; these also require pre-enrollment in the Department office.

Requirements for the Liberal Arts Major in Political Science

The major requires nine courses (36 credits) in political science including PS 100, PS 131, and PS 221 or PS 222. These courses

ARTS AND SCIENCES

are offered every Fall and Winter semester. The rest of the major can be freely elected among the offerings of the Department as listed in this catalog.

Recommended courses for freshmen and prospective majors

For the freshman, or the general student with some interest in political science, the introductory courses American Politics (PS 100) and Foreign Political Systems (PS 131) are recommended. U. S. Foreign Policy (PS 115) and Contemporary Political Issues (PS 110) are suited to both the general student and the prospective major in the Department. PS 110 will deal selectively with a current political issue or topic as announced in the bulletin of classes each semester. Prospective majors might also consider either Western Political Thought (PS 272-273) or Communism (PS 277) as an in-depth background to many other course topics in the major.

Recommended courses for students interested in public service or governmental careers

For the student who seeks a career in government service it is advisable to pursue courses in aspects of American politics (PS 301, 302), law (PS 241, 342, 440, 441), public administration (PS 251), local and metropolitan politics (PS 205), and policy analysis (PS 400, 401). The prospective administrator should improve his skills in quantitative analysis, through PS 221 or PS 222, and, outside the Department, through courses in computer science, economics, and management.

Recommended courses for students interested in Law School

The political science major interested in law school should elect the law courses given in the department — Law and Politics (PS 241) the American Legal System (PS 342) and, when offered, the Seminar in Public Law (PS 440, 441). The pre-law political science major may obtain more information by consulting the collection of law school catalogs maintained by the Departmental office and by contacting the Department's pre-law advisor.

Recommended courses for students interested in graduate study

The undergraduate political science program may be pursued as a preparation for advanced graduate programs given at other

ARTS AND SCIENCES

universities. Some careers in public administration and planning require a master's degree. Careers in teaching political science in a community college require an M.A. degree, and university level teaching and research normally require the Ph.D. degree. Students with these career aspirations may acquire brochures from the Departmental office and are welcome to consult any of the faculty for more detailed information.

The Liberal Arts Political Science Major and Concentrations

It is possible to pursue a reduced major in political science in combination with one of a number of concentrations which are described elsewhere in this catalog. Included as options are the Speech Concentration (see p. 261), and the several area concentrations: East Asia, South Asia, Latin America, and the Slavic Area (see pp. 266-274).

For students who wish to emphasize political science and pursue a secondary education career in social studies, the appropriate program information can be found on pp. 278-279 of this catalog.

PS 100 Introduction to American Politics (4 credits)

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

PS 110 Contemporary Political Issues (4 credits)

Selected topics dealing with current political issues or public policy problems. The particular topic will be announced at the time of offering. The course is designed for the general student and will be available with no prerequisites.

PS 115 U.S. Foreign Policy (4 credits)

Study of the foreign policy issues and challenges confronting the United States in the nuclear age, in the light of the historical evolution of American diplomacy, and of the limitations imposed upon foreign policy makers by public opinion and the exigencies of domestic politics. Offered in the Winter Semester.

PS 131 Foreign Political Systems (4 credits)

Analysis of the politics and governmental systems of selected countries in the contemporary world; types chosen range from established constitutional democracies and totalitarian systems, to movements and regimes of new and developing nations. Offered in the Fall and Winter Semesters and in the Spring Session.

PS 163 Black Politics (4 credits)

Analysis of Afro-Americans and their relationship to the American political system. Emphasis is given to Black political ideologies and thought, political organizations and strategies, and forms of political participation both electoral and non-electoral.

ARTS AND SCIENCES

PS 205 Politics of the Local Community (4 credits)

Study of state and local government, local political forces, trends in metropolitan and suburban politics, problems of planning in an age of urbanization. Offered in the Fall Semester.

PS 213 International Politics (4 credits)

Intensive interdisciplinary study of concepts and hypotheses basic to understanding and analysis of relations among nations. The class may engage in a simulation exercise in international conflict and in the analysis of a number of actual cases to gain experience in the application of the hypotheses studied. Offered in the Fall and Winter Semesters.

PS 221 Systematic Political Analysis (4 credits)

An introduction to formal models in political science. Offered in the Fall and Winter Semesters.

Prerequisite: Sophomore standing.

PS 222 Measurement and Methodology (4 credits)

An introduction to the design of research, the measurement of political variables, and the analysis of data.

PS 241 Law and Politics (4 credits)

A broad survey of the relationship of law and legal systems to politics and political systems. The student will be exposed to the classic jurisprudential, historical, anthropological, and comparative treatments of the subject. Offered in the Fall Semester.

Prerequisite: PS 100.

PS 251 Public Administration (4 credits)

Intensive study of government in action, with special attention to policy formulation, organization, personnel administration, supervision, coordination, administrative control, and accountability. Offered in the Winter Semester.

Prerequisite: PS 100.

PS 271 American Political Thought (4 credits)

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

Prerequisite: PS 100 or permission of the instructor.

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

A two semester survey of Western political philosophy. Each major philosopher, from Plato to Marx, is placed in his historical setting so as to show the interrelationships between the philosopher's environment and his ideas. Offered regularly Fall and Winter Semesters.

PS 277 Communism (4 credits)

The development of revolutionary socialism from early Marxism to the present day. The course analyzes the relevance of Marxism to a variety of contemporary revolutionary situations. Offered in the Fall Semester.

PS 290 Political Science Laboratory (2 or 4 credits)

From time to time, collateral, independent work of various kinds will be offered to students in conjunction with regular departmental courses. These opportunities may be limited to students enrolled in particular courses and may be restricted to political

ARTS AND SCIENCES

science majors. Such work may be taken more than once. Not offered on any set schedule.

Prerequisite: Permission of the instructor before registration.

PS 301 American Presidency and the Executive Process (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 314 Political Socialization (4 credits)

The study of how individuals within the political system come to hold particular attitudes, values, and beliefs which can be viewed as predictive of their political behavior.

Prerequisites: PS 221 or PS 222.

PS 330 Comparative Political Theory (4 credits)

An examination of the various approaches and theories that are used in comparative political research, including theories of development and modernization.

Prerequisite: PS 131.

PS 331 The Political Systems of Britain and Canada (4 credits)

An analysis and comparison of British and Canadian politics, parties, parliament, politicking and public policy.

Prerequisite: PS 131.

PS 332 Politics of the Middle East and North Africa (4 credits)

Examination of the policies of the Middle East and North Africa. The cultural and historical factors that influence the contemporary politics of the area will be emphasized. Topics include religion, social structures, economic problems, the impact of the West, and the Arab-Israel conflict.

PS 333 African Politics (4 credits)

Examination of politics of selected African states, emphasizing West Africa. The primary focus of the course is on political development. Attention is given to traditional and colonial politics as well as to individuals, groups, and institutions that make up the present political process. Offered in the Winter Semester.

Prerequisite: 1 course in Political Science.

PS 334 Political Systems of Southern Asia (4 credits)

Examination of the elements of political life in India and Pakistan. The cultural, historical, social, and economic factors that influence contemporary political institutions; the issues; and the processes by which political conflicts are resolved will be studied. Politics in Ceylon, Nepal, and Himalayan border kingdoms may also be considered.

Prerequisite: UC 066.

ARTS AND SCIENCES

PS 335 Politics of Latin America (4 credits)

Analysis of the political systems of Latin America and the historical, social, and economic factors underlying them. The major countries are studied intensively, and a comparative approach is used to examine the variations from democracy to dictatorship and the political instability that characterize the area. Offered in the Fall Semester. Prerequisite: PS 131 or UC 068.

PS 336 U.S.-Latin American Relations (4 credits)

Analysis of contemporary relations of the United States with the countries of Latin America. Relations with particular countries will be studied as well as the overall economic, military, and diplomatic aspects of our Latin American policy. The Inter-American system and regional groupings within Latin America will also be studied. Offered in the Winter Semester.

Prerequisites: PS 131 or UC 068.

PS 337 The Soviet Political System (4 credits)

A descriptive analysis of the Soviet society as a political system; its origins, institutions, and political behavior. Trends and developments in the system will be assessed, and comparisons with other political systems will be undertaken. Offered in the Winter Semester.

Prerequisite: PS 277.

PS 338 Modern Chinese Politics (4 credits)

An analysis of the rise of social movements in China after the breakdown of the traditional order; the emergence of the Nationalist and Communist regimes and the triumph of the Communists; the political processes of the People's Republic of China, emphasizing the role of elites in policy formation, ideology, mass support, and the exercise of central power. Offered in the Fall Semester.

Prerequisite: UC 062.

PS 339 Sino-Soviet Relations (4 credits)

The relations between the People's Republic of China and the U.S.S.R., emphasizing the reaction to the Russian experience by the leaders of China and the split between the U.S.S.R. and the People's Republic. Offered in the Winter Semester.

Prerequisite: UC 062.

PS 342 The American Legal System (4 credits)

A study of the American legal system in relation to politics and the American political system. The course emphasizes the functioning of the United States Supreme Court as a legal and political instrument. Offered in the Winter Semester.

Prerequisite: PS 241.

PS 361 Political Parties (4 credits)

The development of the concept of party in political research and political action; analysis of the growth and function of parties and party competition in modern societies. Offered in the Winter Semester.

PS 364 Voting Behavior (4 credits)

An examination of the voting behaviors of both individuals and groups. Some consideration of survey research, both methods and results, will be included.

Prerequisites: PS 221 or PS 222.

PS 365 Public Opinion (4 credits)

A study of the formation, communication, and change of the politically relevant

ARTS AND SCIENCES

opinions of individuals and groups in modern societies and of the ways in which these opinions lead to political actions. Offered in the Fall Semester.
Prerequisites: PS 221 or PS 222.

PS 381 Political Theory (4 credits)

The role of theory in the study of politics; the use of formal models and systems theories; examination of the problems of developing a science of politics and its relationship to value and policy questions.
Prerequisites: PS 221 or PS 222.

PS 390 Directed Readings (2 or 4 credits)

Readings not normally covered in existing course offerings. Directed on an individual basis. Consent of the Department and permission of the instructor is required **before** registration.

Seminars

From time to time, the Department offers seminar courses at the advanced level in which a topic or problem is studied in depth, and in which individual student research of a significant sort is presented for analysis and criticism. The seminar titles refer to the broad fields of political science within which the problem falls; the precise problems to be studied will be announced by the Department at the time the seminars are offered.

PS 400, 401 Seminar in Public Policy (4 credits each)

PS 410, 411 Seminar in World Politics (4 credits each)

PS 420, 421 Seminar in Political 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.

ARTS AND SCIENCES

DEPARTMENT OF PSYCHOLOGY

Professors:	David C. Beardslee Harvey Burdick Donald D. O'Dowd
Associate Professors:	Jean S. Braun Daniel N. Braunstein Max Brill Kenneth H. Coffman Peter Jammers-Murdoch Boaz Kahana, Chairman David G. Lowy Ralph Schillace Irving Torgoff
Assistant Professors:	Robert N. Blockovich Joseph S. Dumas Algea O. Harrison Leonard Ireland Gary A. Klein Lorna A. Middendorf Virginia E. O'Leary R. Lucía Pérez F. Edward Rice David W. Shantz Harold Zepelin
Instructor:	Allen Hess
Associated Faculty Professor:	Edward A. Bantel (Education and Psychology) Donald C. Hildum (Speech Communication and Psychology)

The undergraduate psychology program is directed to the student who wishes a broad foundation in contemporary psychological science, with emphasis both on methods of study and on interpretation of research. This program leads to the degree of Bachelor of Arts with liberal arts major in psychology.

The Psychology Department has no specific course requirements for a major in the department. The single requirement is that the student satisfactorily complete 36 credit hours of course work in the field.

A Psychology Department pamphlet, "Majoring in Psychology at Oakland University," is available through the Psychology Office, Room 357 Hannah Hall. This pamphlet discusses majoring in

ARTS AND SCIENCES

psychology in more detail. Modifications in curriculum, etc., semester by semester, are indicated in new versions of the pamphlet which are printed as the need arises. The student majoring in psychology or contemplating doing so should obtain a copy of this pamphlet.

The Psychology Department recognizes that students are individually quite different one from the other. We have planned our curriculum with at least four general "types" of students in mind: (A) the student who is not sure why he or she is majoring in psychology; (B) the student who plans, after obtaining his or her B.A. in Psychology, to find employment rather than continuing with formal education; (C) the student who wants to become a professional psychologist, and therefore plans to go to a graduate school in psychology; and (D) the student who plans to go on in a field other than psychology that requires further formal training. The pamphlet "Majoring in Psychology at Oakland University" discusses these types of students further, and makes suggestions to each type as to specific courses which he or she might take.

The Psychology Department also prints a pamphlet "On Going to Graduate School in Psychology from Oakland University." It is intended for students of type 3, who are in either their junior or senior years and it is also available from the Psychology Office. For programs leading to the degree of Master of Arts in Clinical Psychology or in Developmental Psychology from Oakland University see the *Oakland University Graduate Bulletin*.

NOTES

Juniors and Seniors are particularly encouraged to do research projects under the course numbers PSY 480-485. Research experience is at the heart of contemporary psychology. Psychology students are also strongly encouraged to volunteer to serve as subjects for some of the ongoing research. In all cases once the data is collected subjects will be provided with an explanation of the rationale behind the research. The experience of serving as a subject should be valuable.

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

ARTS AND SCIENCES

tors and grades, plus a selection of written materials submitted earlier in courses or produced especially for this application. The papers may be experimental, speculative, or historical, or accounts of the applicant's experience in some area of applied psychology. Independent laboratory or field work will be given special notice. Applications will be read by a departmental committee which is empowered to grant honors to no more than one third of any year's departmental graduates.

DEPARTMENT COURSES AND PREREQUISITES

Individual courses in the Psychology curriculum have prerequisites which are intended to be as meaningful as we can make them and as minimal as is reasonable. The prerequisites also indicate the general level at which the course is conceived. Courses generally are more advanced as the numbering goes from 100 courses towards 500 courses.

UC 054 Introduction to Social Psychology (4 credits)

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

Prerequisite: None.

PSY 146 Foundations of Contemporary Psychology (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: Two exploratories plus one PSY course or UC 054.

PSY 220 Abnormal Psychology (4 credits)

The psychodynamics of abnormal behavior, clinical types, methods of investigation, and principles of psychotherapy. Formerly listed as PSY 251.

Prerequisite: UC 054 or PSY 146.

PSY 230 Environmental Psychology (4 credits)

The relationship between behavior and the man-defined environment. Topics include: human ecology, basic psychological processes and the environment, individual needs

ARTS AND SCIENCES

in the organization of the environment, social institution and environmental planning.
Prerequisite: One PSY course or UC 054.

PSY 236 Organizational Behavior II (4 credits)

Theoretical and empirical approaches to understanding the design and behavior of complex organizations. Identical with MGT 331.

Prerequisite: UC 054, PSY 146, or MGT 330.

PSY 241 Individual Differences (4 credits)

Intellectual, motivational, and personality differences associated with age, social roles, sex, ethnic and racial groups, and social class.

Prerequisite: UC 054 or PSY 146.

PSY 246 Applied Psychology (4 credits)

The areas in which "psychology" has been put to work, such as childbearing, teaching and training methods, personality and aptitude testing, sensitivity training, human engineering, environmental design, animal behavior, etc.

Prerequisite: UC 054 or PSY 146.

PSY 252 Statistics and Research Design (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. Formerly listed as PSY 231.

Prerequisite: PSY 146.

PSY 271 Child Development (4 credits)

Theory and principles of the development of the child from birth to puberty. Selected topics include: maturational processes, learning and motivation, intelligence, the self concept, and child-rearing practices. Formerly listed as PSY 171.

Prerequisite: UC 054 or PSY 146.

PSY 272 Psychology of Adolescence and Maturity (4 credits)

Biological and psychosocial development during adolescence and adulthood will be explored. Theories of adolescence and adulthood will be considered in light of recent research evidence. There will be special emphasis on problems of adolescence from the perspectives of parents and teachers.

Prerequisite: UC 054 or PSY 146.

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: UC 054 and PSY 252.

ARTS AND SCIENCES

PSY 335 Psycholinguistics (4 credits)

The psychology of language, pointing up the accommodation between the cognitive and physical structure of human beings and the structure of language, the nature of the language learning process, and the consequences of language use. Identical with LIN 335.

Prerequisites: One course in Psychology and one course in Linguistics, or permission of the instructor.

PSY 340 History and Systems of Psychology (4 credits)

How Psychology came to be as it is. From the beginning to the great Experiments and the Schools of Psychology. From the Schools to World War II. From World War II to the present. Men, experiments, theories. Formerly listed as PSY 431.

Prerequisites: PSY 146 and two other psychology courses other than PSY 252.

PSY 350 Motivation (4 credits)

The nature of physiological and behavioral mechanisms that control an organism's reaction to the demands of its environment.

Prerequisite: PSY 146.

PSY 351 Learning, Memory and Thinking (4 credits)

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

Prerequisites: PSY 146 and PSY 252.

PSY 352 Sensation and Perception (4 credits)

Approaches to the basic sensory systems and perceptual processes.

Prerequisites: PSY 146 and PSY 252.

PSY 354 Comparative Psychology (4 credits)

The literature on sub-human animal behavior with reference to its relevance for the understanding of behavior in general. Looks at a range of species from amoeba and the insects up to the primates. Looks at "basic process" behaviors, abnormal behaviors, social behaviors, etc. Formerly listed as PSY 371.

Prerequisite: PSY 350.

PSY 355 Physiological Psychology (4 credits)

The physiological mechanisms underlying the behavior of organisms, including man. Treats such topics as the structure of the nervous system and the principle chemistry of the body. Deals with the physiology of learning, memory, perception, motivation, emotion, etc.

Prerequisite: PSY 350 or 351 or 352 and BIO 104 or BIO 111.

PSY 427 Advanced Personality (4 credits)

The development and functioning of the adult person, with emphasis on experimental and clinical approaches to understanding.

Prerequisite: PSY 320.

PSY 430 Advanced Social Psychology (4 credits)

Critical study of selected areas in social psychology conducted by all members of social psychology staff. Formerly listed as PSY 423.

Prerequisite: Permission of the instructor.

PSY 433 Attitudes and Opinions (4 credits)

The nature and functions of attitudes, the relations between attitudes and personality and between attitudes and behavior. Attitude measurement, the formation of

ARTS AND SCIENCES

attitudes, and attitude change, including strategies for persuasion. The manipulation of attitudes and opinions through advertising and political propaganda.

Prerequisites: 4 courses in Psychology (UC 054 and PSY 330 recommended).

PSY 435 Psychology of Communication (4 credits)

Selected topics from among the following: the nature and origin of language; structural syntactics and semantics and their psychological significance; translation; persuasion; mass communication, including its sources, determinants, organization, messages, audience, and effects. (Normally offered in the Fall Semester.)

Prerequisite: UC 054 or PSY 146.

PSY 451 Experiments in the Basic Processes (4 credits)

Empirical and theoretical investigation of issues in learning, perception, thinking, physiological psychology, and animal behavior, with research projects. Formerly listed as PSY 421.

Prerequisite: PSY 321 or 330 or 351 or 352.

PSY 471 Socialization in the Family (4 credits)

Some of the areas of research and theory on socialization process. Areas of focus: attachment and separation, conscience development, sex-role identity, ego-identity, etc. Role of principal agents: e.g., family, peers, school, etc.

Prerequisite: PSY 271.

PSY 480-485 Readings and Research Projects (2 or 4 credits)

Individual readings or laboratory research on a topic mutually agreed upon by a student and a member of the psychology department faculty. (The course numbers will be rotated from one term to another.) Formerly listed as PSY 363.

Prerequisite: Permission of the instructor.

PSY 510 Developmental Psychology (4 credits)

Description and evaluation of the principles and theories of development from birth to maturity. 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 aptitudes. Objective tests of personality. Formerly listed as PSY 520.

Prerequisite: Permission of Instructor or acceptance into MAT program.

PSY 513 Psychopathology of Childhood (4 credits)

The psychopathology of children and adolescents, emphasizing dynamic and cognitive-perceptual-motor variables. Formerly listed as PSY 525.

Prerequisite: PSY 510 or PSY 512, or acceptance into MAT program in special education, or psychology major or permission of instructor.

PSY 540 Behavior Theory and Learning (4 credits)

Conditioning, reinforcement, punishment, drives, and transfer of training will be studied in their relationship to such complex human processes as education, psychotherapy, and the development of motives.

Prerequisite: PSY 252, 351, 353 and two more psychology courses and/or acceptance into the graduate program.

PSY 541 Advanced General Psychology (4 credits)

Covers same material as PSY 146 but more thoroughly. Adds material on other common psychological topics such as developmental, personality and testing, abnormal,

ARTS AND SCIENCES

and social psychology. Also looks at other less familiar topics. Aimed at student who plans to go on and wants to pause and pick up a total and rounded picture of the field.

Prerequisite: Permission of the Instructor.

PSY 551 Advanced Statistics (4 credits)

Following a review of descriptive and simple inferential statistics, major emphasis will be given to analysis of variance procedures and non-parametric statistics. An introduction to functions and procedures of factor analysis will also be presented. Formerly listed as PSY 561.

Prerequisite: PSY 252.

PSY 570 Social and Personality Development (4 credits)

Major contemporary theoretical, research, and applied activity focusing on familial and extra-familial socialization, parent-child relations, peer influences, and the impact of social change on personality development. This material will be integrated with field experiences in relevant settings.

Prerequisite: PSY 271 and permission of instructor/or acceptance into graduate program.

PSY 571 Perceptual and Cognitive Development (4 credits)

Major contemporary theoretical, research, and applied activity in the developmental nature of perception, learning, reasoning, concept formation, cognitive style, 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 developmental process from birth to old age. The approaches of such theorists as Lewin, Freud, Piaget, Erikson, and leading exponents of social-learning theory will be examined. Formerly listed as PSY 515.

Prerequisite: PSY 271 and permission of instructor/or acceptance into graduate program.

PSY 590-595 Seminar (4 credits)

These seminars will be offered occasionally by faculty members wishing to explore special topics not listed among our regular offerings, either on their own initiative or at the request of a group of students.

Prerequisite: Permission of the Instructor.

PSY 597, 598 Apprentice College Teaching (4 credits)

Supervised participation in the teaching of an undergraduate course in psychology, together with discussion of teaching objectives and methods. Only one of these courses may be offered in fulfillment of departmental requirements.

Prerequisite: Permission of the Instructor.

Note:

The Department of Psychology offers several other courses which are not listed here because they are graduate program courses and are not open to undergraduates.

DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY

Professors:	Nahum Z. Medalia, Chairman Jesse R. Pitts (on leave Fall 1972)
Associate Professors:	Harry Gold Audrey Smedley (On leave)
Assistant Professors:	Peter J. Bertocci William Bezdek Judith K. Brown (on leave Winter 1973) Karen Sacks Jacqueline Scherer
Instructors:	James Dow John Huner Harold A. Olofson Edward Slawski
Associated Faculty Professor:	Philip Singer (Behavioral Sciences and Anthropology)

The Department of Sociology and Anthropology participates in several degree programs, each of which is designed to provide the maximum degree of flexibility to serve the student's interests while, at the same time, providing the substantive background required to prepare the student for a career in his chosen field. The various programs offered by this Department, all leading to the degree of Bachelor of Arts, are described below. Majors in these programs may complete their general education requirement through courses chosen from departmental offerings, from University courses, or in the programs of Charter College, New College or Allport College (with the proviso that majors in sociology must take SOC 100). The Department accepts all options open to students for satisfying the College requirement in symbolic systems.

Requirements for Majors in Sociology and Anthropology Programs

1. **Major in Sociology.** SOC 100 and nine other courses (40 credits) in sociology. Of these nine courses, two may be taken in anthropology.
2. **Major in Anthropology.** AN 101, AN 102, and eight other courses (40 credits) in anthropology. Of these eight courses, two may be taken in sociology. (LIN 301, Linguistic Structures, may be substituted for one departmental course.)

ARTS AND SCIENCES

3. **Major in Sociology and Anthropology.** SOC 100, AN 101, AN 102, four additional courses (28 credits) in sociology, and three additional courses (12 credits) in anthropology.

4. **Major in Sociology with Concentration in Area Studies.** SOC 100, five additional courses (24 credits) in sociology, and five courses (20 credits) in area studies concentration (South or East Asia). For more information on this program see the concentration in area studies, on pp. 267-270 of this catalog.

5. **Major in Anthropology with Concentration in Area Studies.** AN 101, AN 102, four additional courses (24 credits) in anthropology, and five courses (20 credits) in area studies concentration (South or East Asia).

6. **Major in Anthropology with Concentration in Linguistics.** AN 101, AN 102, three additional courses (20 credits) in anthropology, and five courses (20 credits) in linguistics. For further information on this program see the concentration in linguistics on p. 178 of this catalog.

7. **Major in Sociology with Concentration in Linguistics.**

- a. 6 courses (24 credits) in sociology, including SOC 100 and SOC 310. AN 410-Ethnology may be substituted for one course in Sociology.
- b. 5 courses (20 credits) in linguistics, to be selected in consultation with Linguistics Department adviser.

8. **Major in Sociology-Anthropology with Concentration in Speech Communication.**

Note: Speech Communication (SCN) is the most recently-established academic department in the College of Arts and Sciences. (The Speech Communication Concentration will be of particular value to Sociology-Anthropology majors interested in community service occupations, urban communications, and social studies teaching.)

- a. 6 courses (24 credits) in Sociology/Anthropology to include SOC 100 or AN 102.
- b. 4 courses (16 credits) in Speech Communication to include SCN 201, and 371.

ARTS AND SCIENCES

Liberal Arts Major in Sociology

(A Typical Program)

Semester 1

Learning Skills or
Elective

SOC 100
Distribution Requirement
Distribution Requirement

Semester 3

SOC Elective
Distribution Requirement
Distribution Requirement
Elective

Semester 5

SOC Elective
Elective
Elective
Elective

Semester 7

SOC Elective
SOC Elective
Elective
Elective

Semester 2

Learning Skills or
Elective

SOC Elective
Distribution Requirement
Distribution Requirement

Semester 4

SOC Elective
Distribution Requirement
Distribution Requirement
Elective

Semester 6

SOC Elective
Elective
Elective
Elective

Semester 8

SOC Elective
SOC Elective
Elective
Elective

Liberal Arts Major in Anthropology

(A Typical Program)

Semester 1

Learning Skills or
Elective

AN 101
Distribution Requirement
Distribution Requirement

Semester 3

AN Elective
Distribution Requirement
Distribution Requirement
Elective

Semester 5

AN Elective
Elective
Elective
Elective

Semester 2

Learning Skills or
Elective

AN 102
Distribution Requirement
Distribution Requirement

Semester 4

AN Elective
Distribution Requirement
Distribution Requirement
Elective

Semester 6

AN Elective
Elective
Elective
Elective

ARTS AND SCIENCES

Semester 7
AN Elective
AN Elective
Elective
Elective

Semester 8
AN Elective
AN Elective
Elective
Elective

Anthropology

AN 101 Evolution of Man and Culture (4 credits)

Introduction to physical anthropology and archaeology as applied to the evolution of man and culture. Stress placed upon man's development in adaptation to his environment.

AN 102 Man in Culture and Society (4 credits)

Introduction to cultural and social anthropology with emphasis placed upon the continuing adaptation of man to his environment and especially the interactions among culture, society, and natural environment.

AN 200 Advanced Social Anthropology (4 credits)

Examines social structure and social organization in anthropological perspective. Entails the study of economic, political, religious, and kinship systems in the social life of man. Prerequisite: AN 102 or permission of the Instructor.

AN 221 Subsistence and Technology in Non-Industrial Society (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.

Prerequisite: AN 102 or permission of the Instructor.

AN 231 Child-Rearing in Cross-Cultural Perspective (4 credits)

The cross-cultural diversity of child-rearing practices will be examined, emphasizing their educational role. Stress will be put on non-Western societies.

Prerequisite: AN 102 or permission of the Instructor.

AN 241 Culture and Personality (4 credits)

Theories of personality are examined in relationship to the concept of culture. The role of culture in defining and treating physical and mental illness is studied. Deviant behavior and its relevance for cultural change will be discussed.

Prerequisite: AN 102 or permission of the Instructor.

AN 251 Peasant Society and Culture (4 credits)

Studies the peasant as a social type as well as his role in the making of great civilizations. Emphasis placed upon the forces for change in peasant societies, especially in the non-Western world.

Prerequisite: AN 102 or permission of the Instructor.

AN 261 Survey of African Peoples and Cultures (4 credits)

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

Prerequisite: AN 102 or permission of the Instructor.

ARTS AND SCIENCES

AN 271 Magic, Witchcraft, and Religion (4 credits)

This course will study man's social and personal interaction with beings, creatures, and forces who manifest powers beyond those of ordinary people. The folk beliefs of non-literate people will be given special attention; the transformation of social systems by religious movements will be investigated; and anthropological theories of magic, witchcraft, and religion will be examined as they relate to these and other topics.

Prerequisite: AN 102 or sophomore standing or above.

AN 276 Language in Culture (4 credits)

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

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

AN 281 Primate Behavior (4 credits)

Emphasis will be placed on the various bio-social factors which aid the non-human primates (prosimians, monkeys, and apes) in their adaptation to the environment. Obviously, the implications for human behavior will underscore the discussion. In addition, an attempt will be made not only to involve the student in the classroom but also in actual field studies.

Prerequisite: AN 101 or permission of Instructor.

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

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

Prerequisite: AN 102 or permission of the Instructor.

AN/SOC 336 Sex Roles (4 credits)

A look at male and female "nature" in our own and other societies; comparative analysis of sex roles and status in tribal and class societies; and modern anthropological and sociological theories on sex role and status differences.

Prerequisite: SOC 100 or AN 102 or permission of Instructor.

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

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

Prerequisites: AN 241 or Allport College Introduction to Behavioral Sciences, or permission of Instructor.

AN 351 Social Anthropology of Selected African Societies (4 credits)

Intensive studies of selected societies in Africa. The course will emphasize social anthropology, including social organization and the social process, political systems, kinship, economic organization, and religious systems.

Prerequisite: AN 200 or permission of the Instructor.

AN 361 Contemporary South Asian Society (4 credits)

A study of contemporary rural and urban society in India and Pakistan. Emphasis is placed on social, economic, political, and religious life, as well as on problems of cultural change.

Prerequisite: AN 102 or UC 066 or permission of the Instructor.

ARTS AND SCIENCES

AN 371 Cultures of Mesoamerica (4 credits)

Reviews anthropological studies of Indian and Mestizo societies in Mexico and Guatemala. This course will examine the separate socio-economic patterns of these two social types and also their integration into a dualistic social system.

Prerequisite: AN 102 or permission of the Instructor.

AN 372 Indians of South America (4 credits)

This course will examine the various adaptations that the native South Americans have made to the different environments that exist in that part of the world. Special South American Indian institutions such as ritual warfare, and dual social organization will be studied. Some of the cultural groups that will be included are: circum-Caribbean tribes and chiefdoms, Andean peasants and herders, tropical forest horticulturalists, Brazilian highland Indians, forest and plains nomads, and southern fishing tribes.

Prerequisite: AN 102 or permission of the Instructor.

AN 380 Archeology of North America (4 credits)

A survey course which will examine evolution of native North American cultures (including those of Mesoamerica) from 50,000 B.C. to 1500 A.D. Emphasis will be placed on the development of culture areas due to ecological factors as indicated by the archeological record.

Prerequisite: AN 101 or permission of the Instructor.

AN 381 Indigenous Peoples of North America (4 credits)

Features selected culture areas of North America, focusing variously on American Indians as well as the Eskimos. Emphasis placed on adaptation to contact with Western cultures.

Prerequisite: AN 102 or permission of the Instructor.

AN 400 History of Anthropological Theory (4 credits)

Traces the historical development of theory in anthropology. Emphasis is placed upon recurring problems of theoretical and empirical import to the growth of the discipline as a whole.

Prerequisite: AN 200 or permission of the Instructor.

AN 410 Communication, Ethology and Man (4 credits)

Human ethology explores the animal in the human and what prefigures the human in animals. In relating recent ethological (animal behavior) findings and human socio-cultural data, the course will cover such topics as verbal and non-verbal communication, culture or tradition, spatial relationships, sexuality, ritual, group structure and the definition of social situations. Communication, where used as an organizing concept for the course, will be anthropologically defined.

No prerequisite.

AN/SOC 420 Ethnopsychiatry and Medical Sociology

Presents and analyzes cross-culturally the socio-cultural context of cultural deviance, disease and the forms of institutional and medical care. It draws on:

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

Prerequisites: Three (3) Sociology or Anthropology courses.

ARTS AND SCIENCES

AN 480 Independent Study and Research (2 or 4 credits)

A tutorial in which the student will pursue a course of reading and research with the instructor. May be repeated only once for credit.

Prerequisites: Major standing in anthropology or related majors and permission of the instructor. Fall, Winter.

AN 490 Current Problems in Anthropology (2 or 4 credits)

An advanced seminar in which a topic or problem is studied in depth. Each seminar requires students to do independent reading and writing.

Prerequisites: Major standing in anthropology or related majors and permission of the instructor.

Sociology

SOC 100 Introduction to Sociology (4 credits)

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

SOC 200 Introduction to Sociology of Education (4 credits)

Designed primarily for the secondary education major, this course examines the public school system within the context of contemporary social, political, and economic realities. Discusses unionization, the bureaucratic structure of the school, informal organizations within the school, and the special problems of minority groups.

Prerequisites: SOC 100 and ED 224 or permission of the instructor.

SOC 201 Population Theory and Problems (4 credits)

Provides an historical analysis of world population growth, focusing upon the relationships among population size, population policy, and social and economic development.

Prerequisite: SOC 100 or permission of the instructor.

SOC 202 Character and Social Structure (4 credits)

A study of the relationship of the individual to society from the point of view of the impact of society upon the individual.

Prerequisite: SOC 100 or permission of the instructor.

SOC 203 Social Statistics (4 credits)

Focuses upon problems of data analysis on the nominal and ordinal levels of measurement. Includes survey sampling, scale and index construction, non-parametric statistics, population indices and statistics, and some elementary model building. Requires the equivalent of high school algebra.

Prerequisite: SOC 100 or permission of the instructor.

SOC 205 Sociology of Social Problems (4 credits)

An introductory survey of social problems in areas such as race relations, poverty, delinquency, and crime; comparison of sociological with journalistic, theological, and political-legal approaches to social problems.

Prerequisite: SOC 100 or permission of the instructor.

ARTS AND SCIENCES

SOC 221 Sociology of Crime and Punishment (4 credits)

A study of the various forms of deviance, from illness and juvenile delinquency to habitual crime; and an analysis of sociological theories developed to explain the phenomenon of crime. A study of modes of control from hospitals to penitentiaries. Prerequisite: SOC 100 or permission of the Instructor.

SOC 231 Racial and Cultural Relations (4 credits)

A study of racial, national, and religious groups, particularly those of the United States. Emphasis will be placed on their historical development, on special problems of adjustment and assimilation, and on specific present-day problems and trends. Prerequisite: SOC 100 or permission of the Instructor.

SOC 255 Industrial Sociology (4 credits)

A study of the relationship between industrial and business organizations and the community; the history of industrial sociology; the study of occupations; the social structure of business and industrial organizations, labor unions, and informal work groups; and the character of occupational life in America. Prerequisite: SOC 100 or permission of the Instructor.

SOC 260 Urban Sociology (4 credits)

The social structure, culture, and ecology of early and contemporary urban communities; institutional responses to the problems of modern urban life. Prerequisite: SOC 100 or permission of the Instructor.

SOC 280 Directed Readings in Sociology (4 credits)

A tutorial course primarily for non-majors interested in research on a special problem. May not be repeated for credit. Prerequisite: SOC 100 and permission of the Instructor.

SOC 300 Social Stratification in Cross-Cultural Perspective (4 credits)

A course which examines the concepts of class, caste, and race in terms of social conflict and social integration. Students will study these problems in a cross-cultural perspective placing emphasis upon comparative materials. Prerequisite: SOC 100 and permission of the Instructor.

SOC 305 Sociology of Religion (4 credits)

An analysis of the changing relationship between social structure and religion. Comparative materials will be examined from pre-industrial societies, Europe during the Protestant Reformation, and the contemporary United States. Prerequisite: SOC 100 or permission of the Instructor.

SOC 306 Philosophical Bases for Social Research (4 credits)

A course in the philosophy of the social sciences beginning with Hume and including the Marxists, the Social Darwinists, the cultural determinists, contemporary functionalism, and phenomenology. Emphasis placed upon the assumptions various schools of thought have made about reality and the constraints imposed by these assumptions for consideration of reality. Prerequisite: SOC 100 or permission of the Instructor.

SOC 307 Methods of Social Research (4 credits)

Examines problems and techniques of measurement in contemporary sociological research. Principal concern is with a survey of the diversity of methods available to the sociologist. Prerequisite: SOC 100 or permission of the Instructor.

ARTS AND SCIENCES

SOC 310 Contemporary Sociological Theory (4 credits)

A study of contemporary sociological theory starting with Veblen, G. H. Mead, and W. I. Thomas and examining the works of R. K. Merton, Talcott Parsons, Seymour Lipset, William Goode, and S. N. Eisenstadt.

Prerequisite: SOC 100 or permission of the Instructor.

SOC 311 Classical Sociological Theories (4 credits)

A study of classical sociological theory stressing the works of Comte, Marx, Durkheim, Pareto, Weber, Simmel, and Freud.

Prerequisite: SOC 100 or permission of the Instructor.

SOC 330 The Sociology of Youth (4 credits)

A cross-cultural analysis of the emerging youth culture in industrial societies. Emphasis will be placed upon the economic, social, and political consequences for the rest of society of the emergence of this youth culture.

Prerequisite: SOC 100 or permission of the Instructor.

SOC 335 The Family (4 credits)

A comparative and historical treatment of the background of contemporary problems of this institution. Function, forms, and processes are discussed.

Prerequisite: SOC 100 or permission of the Instructor.

SOC 336 Sex Roles in Modern Society (4 credits)

An examination of the effects of ideological and technological change on the statuses, occupations, and relationships of males and females in various stages of life.

Prerequisite: SOC 100 or permission of the Instructor.

SOC 341 Social Change (4 credits)

The prediction and explanation of social changes in society. Special attention may be given to such mechanisms of change as crowds, publics, mass movements, social movements, revolutions, wars of national liberation, and total cultural revolutions. Implications for social action are discussed.

Prerequisite: SOC 100 or permission of the Instructor.

SOC 345 Sociology of International Relations (4 credits)

Principles of subordination and superordination and conditions for cooperation will be studied as they apply to systems of economic and political exchange among nations.

Prerequisite: SOC 100 or permission of the Instructor.

SOC 355 Sociology of Occupations and Professions (4 credits)

An analysis of the structure of major occupations and especially of the major professions, in terms of their publics, their mandates, their clients, and the career lines they offer. Comparisons between "incomplete professions," such as nursing and undertaking and full-fledged professions are made.

Prerequisite: SOC 100 or permission of the Instructor.

SOC 360 Political Sociology (4 credits)

An analysis of the sociological factors which influence the distribution of power within a society. Political communication, the maintenance of consensus, the process of revolution, the structure of political parties, and the emergence of new states will be studied; emphasis will vary according to the research interests of the instructor.

Prerequisite: SOC 100 or permission of the Instructor.

ARTS AND SCIENCES

SOC 370 Communities (4 credits)

Community is one of the most important and exciting concepts in sociology. The current interest in developing new communities reflects the concern of many to find new and more effective ways of living together. Students will explore the many meanings of the concept and by use of case studies in a variety of settings, learn how some may be relevant to contemporary living.

Prerequisites: SOC 100 or permission of instructor.

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

A critical examination of the role and impact of the mass media in contemporary society. The course emphasizes three aspects of mass communications research and theory, all of which are studied from the viewpoint of the social sciences: the analysis of the objectives and techniques of disseminating ideas and information through the mass media; the evaluation of the influence of the media on the values and policy preferences of a variety of individuals, social groups and institutions; and the design and application of research methods and models for the study of the forms and effects of mass communications.

Prerequisite: SOC 100 or sophomore standing and above.

SOC 380 Sociology of Bureaucracy (4 credits)

A study of bureaucratic forms of organization. Systematic study of theories of bureaucracy and theories of organizational change.

Prerequisite: SOC 100 or permission of the instructor.

SOC 392 Comparative Institutions in France and America (4 credits)

A comparative survey of the cultures and social structures of French society and American society. This course will describe and analyze patterns of kinship, religion, politics, and social stratification.

Prerequisite: SOC 100 or permission of the instructor.

SOC 400 Education as a Socializing Institution (4 credits)

Discussion of concepts and methodology appropriate to cross-cultural and social system research on socializing institutions, with particular reference to those of formal education.

Prerequisites: SOC 100, SOC 200 or permission of instructor.

SOC 402 Small Groups (4 credits)

Focuses on small group relations as a micro-social system, as the interpersonal locus for personality development, and as the continuing expression of macro-social processes. (Recommended for anyone interested in the systematic analysis of small group relations.)

Prerequisite: SOC 100 or permission of instructor.

SOC/AN 420 Ethnopsychiatry and Medical Sociology

Presents and analyzes cross-culturally the socio-cultural context of cultural deviance, disease and the forms of institutional and medical care. It draws on:

- a. The relevance of family relationships and child-bearing practices to disease and the cultural response to disease.
- b. Socio-cultural variables in physician-patient, indigenous healer-patient relationship;
- c. The sociology of medical institutions and change;

ARTS AND SCIENCES

- d. The special problems of acculturation and culture change faced by people of emerging countries and America's poor.

Prerequisites: Three (3) Sociology or Anthropology courses.

SOC 470 Field Studies in Sociology (4 credits)

Course will attempt to develop students' skills of sociological analysis and interpretation through their placement as participant observers in a variety of Detroit Metropolitan social service organizations. Students will meet periodically with instructor for discussion of field activities and of background readings. 8-12 hours/week of field activity will be expected; and written reports of the field study required. Field placements and class meetings to be arranged by instructor. Open only to majors in Sociology-Anthropology.

Prerequisites: Junior standing and completion of any one of the following courses: SOC 200, 221, 231, 255, 260, 300, 335, 355, 380.

SOC 480 Independent Study and Research (2 or 4 credits)

A tutorial in which the student will pursue a course of reading and research with the instructor.

Prerequisites: Major standing in sociology and permission of the instructor.

SOC 490 Special Topics in Sociology (2 or 4 credits)

An advanced seminar in which a topic or problem is studied in depth. Each seminar requires students to do independent reading and writing.

Prerequisites: Major standing in sociology and permission of the instructor.

ARTS AND SCIENCES

DEPARTMENT OF SPEECH COMMUNICATION

Professor: Donald C. Hildum

Associate Professor: Adeline G. Hirschfeld, Chairman

The newly established Department of Speech Communication includes a large number of interdisciplinary interests which will be represented in the near future by courses in interpersonal communication, public speaking, rhetoric, voice and articulation, group communication, organizational communication, oral interpretation, theatre, mass media analysis, television and film production, and speech education. A number of these courses will be cross-listed with other departments, and our teaching staff will be supplemented from time to time by members of such other departments as English, Linguistics, Modern Languages, Philosophy, Psychology and Sociology.

Understanding and competency in the communication process complements almost any of the existing curricula at Oakland University and enhances opportunities for success in all professions where human interaction occurs. Some of these professions are teaching, public relations, law, personnel, industrial communications, advertising, government and social service, as well as the specific communication industries such as, television, films, and journalism. These opportunities are especially timely for women students, now that the teaching profession is absorbing fewer graduates. Fortunately, new fields such as public administration and management are opening up to women, fields in which the ability to convert "personal knowledge and experience into social currency" or mastery of speech communication are at a premium.

Some subspecialities in speech communication require graduate degrees, such as speech pathology and audiology. With the proposed offerings, graduates of Oakland University can expect to meet requirements for entrance into these graduate programs.

Speech Communication and the General Education Distribution Requirement

All Speech Communication (SCN) courses satisfy the General Education Distribution Requirement within the Social Science field group with the exception of SCN 310 crosslisted with PHL 365, Philosophy of Rhetoric, which falls within the Letters group.

Concentrations in Speech Communication

Presently, students may concentrate in SCN with modified majors in Linguistics, Political Science, Psychology, and Sociology. Also, on its way to implementation is a minor in speech education for secondary teachers.

Major in Linguistics with a Concentration in Speech Communication

The Speech Communication concentration for the Linguistics major requires:

- (a) six courses (24 credits) in linguistics including

LIN 301 Linguistic Structures

Any two of,

LIN 260 Biolinguistics

LIN 277 Sound Patterns of American English

LIN 335 Psycholinguistics

Any two of,

LIN 401 Phonetics

LIN 404 Grammatical Analysis

LIN 407 Semantic Theory

One elective

- (b) Five courses (20 credits) in Speech Communication including

SCN 201

SCN 303 highly recommended

Major in Political Science with a Concentration in Speech Communication

The Speech Communication concentration for the Political Science major requires:

- (a) Six courses (24 credits) in Political Science

- (b) Four courses (16 credits) in Speech Communication

With this combination students can prepare for government service, pre-law, politics, and careers in the media.

Major in Psychology with a Concentration in Speech Communication

The Speech Communication concentration for the Psychology major requires:

ARTS AND SCIENCES

- (a) Six courses (24 credits) in psychology, including
PSY 146 Foundations of Contemporary Psychology
UC 54 Introduction to Social Psychology

Any two of:

- PSY 320 Theories of Personality
PSY 350 Motivation
PSY 351 Learning, Memory, Thinking
PSY 352 Sensation and Perception

Either:

- PSY 335 Psycholinguistics
PSY 435 Psychology of Communication

- (b) Four courses (16 credits) in Speech Communication, including:
SCN 201

This curriculum provides preparation for careers in the helping professions, particularly where one-to-one and small group work is required.

Major in Sociology with a Concentration in Speech Communication

The Speech Communication concentration for the Sociology major requires:

- (a) Six courses (24 credits) in Sociology including:
UC 058 Introduction to Sociology
AN 410 Ethology, which may be substituted for one course
in Sociology
- (b) Four courses (16 credits) in Speech Communication, including:
SCN 201 Effective Speech Communication
SCN 371 Forms and Effects of Mass Communication

With this combination, students are prepared for a wide range of career possibilities in community service occupations, urban communications, and social studies teaching.

SCN 121 Speech Laboratory (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 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.

ARTS AND SCIENCES

and style of public address with application in the construction and delivery of public speeches. Prerequisite: SCN 201. Offered every two years.

SCN 320 Speech Communication for the (4 credits) **Elementary Teacher**

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

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

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

SCN 350 Oral Interpretation and Reader's (4 credits) **Theatre**

Analysis of selected prose, poetry, and drama, and the oral communication of such literature for its intellectual, emotional, and aesthetic effects. Offered every year.

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

A critical examination of the role and impact of the mass media in contemporary society. The course emphasizes three aspects of mass communications research and theory, all of which are studied from the viewpoint of the social sciences: the analysis of the objectives and techniques of disseminating ideas and information through the mass media; the evaluation of the influence of the media on the values and policy preferences of a variety of individuals, social groups and institutions; and the design and application of research methods and models for the study of the forms and effects of mass communications. Offered every year.

SCN 372 Reporting Public Affairs (1 or 2 credits)

Intensive practical training in the interpretation, writing and presentation of information and ideas through news, editorial and feature articles, with special emphasis on the political and social issues relevant to community publications. The specific format, topics and projects may differ from semester to semester, depending on the needs and background of those enrolled. Special individual projects may be arranged at the discretion of the instructor. The course may be taken for one or two credits per semester, and may be taken more than once but for no more than a total of four credits. Offered every year.

SCN 402/SOC 402 Small Groups (4 credits)

This focuses on small groups relationships as micro-social systems, as the interpersonal locus for personality development, and as the continuing expression of macro-social processes. Recommended for anyone interested in the systematic analysis of small group relationships.

Prerequisite: US 058 or permission of the Instructor.

SCN 420/ED 590 Extemporaction (4 credits)

Theory and applications of experiential methods of teaching such as simulation, improvisation, roleplaying, sociodrama, creative dramatics, story theatre and educational games. Offered every year.

ARTS AND SCIENCES

INTERDEPARTMENTAL PROGRAMS AND COURSES

THE AREA STUDIES PROGRAM

COMMITTEE ON AREA STUDIES

Robert C. Howes (History — Russia), Chairman

Peter J. Bertocci (Anthropology — India)

Edward J. Heubel (Political Science — Latin America)

Harold G. Lawrence (History — Africa)

James R. Ozinga (Political Science — Russia)

Amitendranath Tagore (Modern Languages)

S. Bernard Thomas (History — China)

The area studies program is dedicated to the understanding of living civilizations whose various aspects — language, history, government, social organization, literature, and so on — form the basis of studies primarily within the traditional departments. A concentration in area studies might be considered by any student who seeks an integrated view of a civilization out of intellectual curiosity as well as by the student who looks forward to a career in government service or journalism, to foreign residence or work, or to graduate study with an area emphasis. At present, Oakland University offers area programs in East Asian studies (China and Japan), South Asian studies (India and Pakistan), Slavic studies (Russia and Eastern Europe), and Latin American studies. A similar program in African studies may be pursued as an independent concentration. (See p. 95 for descriptions of introductory area studies courses.)

Area concentrations are available only on a joint basis with a department and consist of a modified departmental major combined with a concentration in area studies, including work in the language of the area. Concentrations are now offered in combination with the Departments of Art, History, Modern Languages and Literatures, Philosophy, Political Science, and Sociology and Anthropology. Appropriateness in combining an area specialization and a department, and the suitability of specific course requirements for a joint degree, depend in large measure upon the interests and the career plans of each student.

I. Programs Offered by the Language and Area Center for East Asia

(The China program is offered by Oakland University's Language and Area Center for East Asia, established in 1965 with the support of a continuing grant from the U.S. Office of Education.)

FACULTY OF THE CENTER

Robert C. Howes, Chairman
 Sheldon L. Appleton (Political Science)
 Ralph F. Glenn (Art)
 Janet A. Krompart (East Asian Librarian)
 Robert J. Krompart (History)
 John Marney (Chinese Language and Literature)
 Paul M. Michaud (History)
 Shih-Chen Peng (Chinese Language and Literature)
 John E. Rue (Political Science)
 I. Michael Solomon (History)
 Amitendranath Tagore (Chinese Language and Literature)
 S. Bernard Thomas (History)

COURSE OFFERINGS

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

Chinese Language and Literature courses

(See Modern Languages and Literatures.)

AH	300	Oriental Art
AH	301	Japanese Art
AH	302	Buddhist Art
AH	400	Chinese Art
AH	401	Japanese Painting
AH	403	Asian Ceramics
HST	277	Japan to 1800
HST	278	Japan since 1800
HST	370	China: Beginnings to Mid-T'ang, ca. 750

ARTS AND SCIENCES

HST	371	China: Mid-T'ang to the Peak of Manchu Power, ca. 1880
HST	373	Nineteenth Century China
HST	374	Nationalism and Communism in China
HST	375	Topics in Chinese Intellectual History
PHL	250	Philosophies and Religions of Asia
PHL	351	Chinese Philosophy
PS	338	Modern Chinese Politics
PS	339	Sino-Soviet Relations
AS	381	Seminar in East Asian Studies
AS	390	Directed Readings in Area Studies
AS	490	Directed Research in Area Studies

(See pp. 273-274 for descriptions of AS 381, 390, and 490.)

PROGRAM OPTIONS AND REQUIREMENTS

Admission to the following programs in East Asian studies requires successful completion of UC 062 or UC 063, two semesters (10 credits) of Chinese, and major standing within a cooperating department. Interested students should consult with the director of the East Asia Center as early in their college careers as possible. For the specific program options and requirements see below.

Major in Chinese Language and Civilization

The requirement in Chinese for this major is eight courses (36 credits) ordinarily CHE 114-115, 214-215, and four others selected from departmental offerings in consultation with an adviser. Five area courses (20 credits), selected from the above list and including AS 490, are also required.

The Concentration in East Asian Studies

The concentration is offered in combination with a modified departmental major in anthropology, history, political science, philosophy, or sociology. The requirements are: six courses (24 credits) in the major department, two years (20 credits) of Chinese language, and five additional area courses (20 credits) from the above list, including AS 490.

II. The South Asian Studies Program

FACULTY

Peter J. Bertocci (Sociology and Anthropology), Coordinator
 Richard W. Brooks (Philosophy)
 Carlo Coppola (Linguistics and Modern Languages)
 Susan Hadden (Political Science)
 John Hurd II (Economics)
 Paul M. Michaud (History)
 Munibur Rahman (Modern Languages)
 Amitendranath Tagore (Modern Languages)
 Richard P. Tucker (History)

COURSE OFFERINGS

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

Hindi-Urdu Language and Literature courses

(See Modern Languages and Literatures.)

(In special cases Sanskrit or Bengali may constitute an alternative to Hindi-Urdu, with consent of the coordinator of South Asian studies.)

AH	300	Oriental Art
AH	302	Buddhist Art
AH	403	Asian Ceramics
AN	361	Contemporary South Asian Society
ECN	223	The Indian Economy
HST	280	History of Southeast Asia
HST	282	Introduction to the History of India
HST	381	History of Early India
HST	382	Mughal and British India, 1526-1860
HST	383	The Nationalist Era in India and Pakistan, 1860-1960
PHL	250	Philosophies and Religions of Asia
PHL	352	Indian Philosophy
PS	334	Political Systems of Southern Asia

ARTS AND SCIENCES

- SOC 300** **Social Stratification in Cross-Cultural Perspective**
AS 382 **Seminar in South Asian Studies**
AS 390 **Directed Readings in Area Studies**
AS 490 **Directed Research in Area Studies**

(See pp. 273-274 for descriptions of AS 382, 390, and 490.)

The Concentration in South Asian Studies

The concentration is offered in combination with a modified departmental major in anthropology, history, political science, philosophy, or sociology. The requirements are: six courses (24 credits) in the major department, two years (20 credits) of an Indian language, and five additional area courses (20 credits) from the above list, including AS 490.

Formal admission to the concentration requires completion of UC 066, two semesters (10 credits) of an Indian language, and major standing within a cooperating department. Interested students should consult with the coordinator of South Asian studies as early in their college careers as possible.

III. The Slavic Studies Program

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)

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**

ARTS AND SCIENCES

HST	254	Eastern European History
HST	352	Kiev and Muscovy
HST	353	Imperial Russia
HST	354	Soviet Russia
HST	355	Russian Intellectual History
PS	277	Communism
PS	337	The Soviet Political System
PS	339	Sino-Soviet Relations
AS	383	Seminar in Slavic Studies
AS	390	Directed Readings in Area Studies
AS	490	Directed Research in Area Studies

(See pp. 273-274 for descriptions of AS 383, 390, and 490.)

PROGRAM OPTIONS AND REQUIREMENTS

Admission to the following programs in Slavic studies requires completion of HST 251 or 252, two semesters (10 credits) of Russian, and major standing within a cooperating department. Interested students should consult with the coordinator of the Slavic studies program as early in their college careers as possible. For the specific program options and requirements, see below.

Major in Russian Language and Civilization

The requirement in Russian for this major is eight courses (36 credits), ordinarily Russian 114-115, 214-215, and four others selected from departmental offerings in consultation with an adviser. Five area courses (20 credits) selected from the above list and including AS 490 are also required.

The Concentration in Slavic Studies

The concentration is offered in combination with a modified departmental major in anthropology, history, political science, philosophy, or sociology. The requirements are: six courses (24 credits) in the major department, two years (20 credits) of Russian language, and five additional area courses (20 credits) from the above list, including HST 251 or 252, PS 337, and AS 490.

ARTS AND SCIENCES

IV. The Latin American Studies Program

FACULTY

Edward J. Heubel (Political Science), Coordinator

William C. Bryant (Spanish)

James W. Dow (Anthropology)

Mary C. Karasch (History)

Richard A. Mazzara (French, Portuguese)

Kathryn McArdle (Spanish)

Mariano Pallarés (Spanish, Portuguese)

Colin A. Palmer (History)

COURSE OFFERINGS

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

Spanish and Portuguese Language and Literature courses

(See Modern Languages and Literatures.)

AH 204 Pre-Columbian and American Indian Art

AN 371 Cultures of Mesoamerica

ECN 326 Economic Development

FRH 287 Studies in Black Literature Written in French

HST 261, 262 Introduction to Latin American History

HST 366 Slavery and Race Relations in the New World

PS 335 Politics of Latin America

PS 336 U.S.-Latin American Relations

SPN 286 Survey of Latin American Literature (in translation)

SPN 462, 463 Spanish American Literature I and II

AS 385 Seminar in Latin American Studies

AS 390 Directed Readings in Area Studies

AS 490 Directed Research in Area Studies

(See pp. 273-274 for descriptions of AS 385, 390, and 490.)

Major in Latin American Languages and Civilization

The requirement in Spanish for this major is a minimum of six courses (24 credits) beyond SPN 214-215 selected from depart-

ARTS AND SCIENCES

mental offerings in consultation with an adviser. Five additional courses (20 credits) selected from several departments as represented in the above list and including AS 490 are also required.

An alternative language requirement for this major is four courses (16 credits) in Spanish beyond SPN 214-215, and three courses (15 credits) in Portuguese language and literature. Other combinations of languages used in Latin America, such as French, (with Spanish), will be considered.

The Concentration in Latin American Studies

The concentration is offered in combination with a modified departmental major in anthropology, history, political science, philosophy, or sociology. The requirements are: six courses (24 credits) in the major department, two years (20 credits) of Spanish language and six area courses (24 credits) including (UC 068), Introduction to Latin America, and (AS 490). The remaining 16 hours are to be drawn from the list of courses above to complete the area component of the major.

V. Interdepartmental Courses Offered Towards the Area Concentrations

AS 381 Seminar in East Asian Studies (4 credits)

Offered to supplement departmental area courses. An intensive study of selected 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.

ARTS AND SCIENCES

AS 390 Directed Readings in Area Studies (4 credits)

Readings from diverse disciplines with focus on a student's area of specialization. Conducted on a tutorial basis by an instructor chosen by the student. Requires approval of the chairman of the Committee on Area Studies prior to registration.

Prerequisites: Permission of the Department and the Instructor.

AS 490 Directed Research in Area Studies (4 credits)

Research relating to the student's area of specialization including completion of a senior essay or research paper. May be offered as a seminar or as a tutorial. Supervised by an instructor from the area studies staff. Approval of the instructor and of the chairman of the Committee on Area Studies are required prior to registration.

Prerequisites: Senior standing, admission to an area concentration, and permission of the Department and the Instructor.

CONCENTRATION IN COMPUTER AND INFORMATION SCIENCE

In addition to usage in the natural sciences, business, and engineering, the digital computer now finds wide application in the social sciences, arts and letters, and education. The main objective of the Computer and Information Science Concentration is to provide an opportunity for students in the natural sciences, economics and management, education, the social sciences, arts and letters and engineering to add preparation in the area of computers to their major field of study. The student, in consultation with the Concentration Committee, would shape the Concentration to fit his or her needs. The background achieved in this way would allow students to develop computer applications for problems in their area of specialization, thereby preparing them for research in their major field of study, for positions in industry and government, and for further academic work.

The Concentration in Computer and Information Science is not a degree granting program. Instead it augments other major fields of study, giving the students access to a very powerful and flexible means of approaching problems. Although the problems may be very diverse, the computer approaches to them exhibit unity. Computer Science deals with the principles underlying the approach to various problems. This new concentration allows students to assemble sounder and more attractive programs within the existing framework of major areas of study.

It is intended that the Concentration be broadly interdisciplinary in outlook such that students from a wide variety of majors may choose meaningful programs within the Concentration. For example, with a major in mathematics, physics, chemistry, biology or engineering, a student may wish to emphasize numerical and

ARTS AND SCIENCES

scientific computing aspects of Computer and Information Science. With a major in English, modern languages, linguistics, psychology, sociology, anthropology or history, a student may wish to take courses in the Concentration that emphasize non-numerical and symbolic data processing, language translation, data structures and list processing. With a major in economics and management, a student may wish to take courses oriented toward application of computers in economic analysis or management sciences.

The Concentration is available on a joint basis with a co-operating department in the College of Arts and Sciences, the School of Economics and Management, the School of Education, the School of Performing Arts or within the School of Engineering.

For further details on requirements and courses, see pp. 347-348, 354-356.

CONCENTRATION IN ENVIRONMENTAL STUDIES

COMMITTEE ON ENVIRONMENTAL STUDIES

Paul Tombouliau (Chemistry), Chairman

The Environmental Studies program is intended to introduce students to modes of thought and action relative to environmental issues. Emphasis is on the application of knowledge to the solutions, or approaches to the solutions of environmental problems. Thus the program does not offer a major, but concentrations are available in conjunction with existing majors in other departments. Programs of individualized independent study and field work are a frequent feature of these concentrations. Interested students are encouraged to consult with their major department, or the program coordinator.

ENV 151 Introduction to Environmental Studies (4 credits)

A general introduction to selected social and political aspects of typical environmental issues. Topics chosen from current literature and taught predominantly by social science faculty. (This course may be used to satisfy part of the Distribution Requirement in social science.)

ENV 181 Introduction to Environmental Studies (4 credits)

A general introduction to selected scientific and technical aspects of typical environmental issues. Topics chosen from current literature and taught predominantly by science faculty. (This course may be used to satisfy part of the Distribution Requirement in natural science.)

ENV 182 Introduction to Environmental Studies (4 credits)

A course complementing ENV 181, dealing with selected specialized studies of resource uses and management.

ENV 212 Energy and Environment (4 credits)

Basic facts of energy: its forms and conversions. Role of energy flow in the bio-

ARTS AND SCIENCES

sphere: its source, utilization, and sinks. Man's utilization of energy: the advantages and disadvantages. Problems of energy conversion in the immediate future.

ENV 305 Selected Topics (2, 4, 6, or 8 credits)

Studies in special areas, often individually arranged. May be repeated for credit. Preparation of study plan and approval of the instructor listed is required prior to registration.

ENV 372 Air Quality (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 methods of air pollution control will be included.

Prerequisite: One year of chemistry desirable.

ENV 373 Water Quality (4 credits)

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

Prerequisite: 1 year of chemistry.

CONCENTRATION IN PREMEDICAL STUDIES

Students intending to pursue careers in the medical or dental professions are expected to complete the concentration in premedical studies. The concentration consists of a series of courses in biology, chemistry, mathematics, and physics intended to satisfy the minimum requirements for admission to the various medical and dental schools in Michigan and elsewhere. In general, the concentration is completed with the following courses:

- (a) Biology: 3 courses (15 credits), including laboratories.
- (b) Chemistry: 4 courses (20 credits), including laboratories.
- (c) Mathematics: 2 courses (8 credits).
- (d) Physics: 2 courses (10 credits), including laboratories.

The premedical studies concentration does not constitute a major. Students must select a major from among those offered by the University. Each student in the concentration will be assigned a premedical adviser who will assist the student in planning his or her academic program for as long as the student is enrolled in the concentration.

CONCENTRATION IN RELIGIOUS STUDIES

COMMITTEE ON RELIGIOUS STUDIES

Richard J. Burke (Philosophy), Chairman

James W. Dow (Anthropology)

William C. Fish (Education)

Leo V. Gerulaitis (History)

Donald E. Morse (English)

Other faculty members associated with the Program in 1972-1973:

- Donald C. Hildum (Speech Communication and Psychology)
- Charles E. Morton (Philosophy)
- Richard W. Brooks (Philosophy)
- William Brewster (New College)
- Richard P. Tucker (History and South Asian Studies)
- Charles W. Akers (History)
- Munibur Rahman (Modern Languages)
- William D. Jaymes (Modern Languages)

The Religious Studies Program offers a series of courses on religion, both Western and Eastern, both traditional and contemporary. These courses do not seek to confirm or attack any particular religious point of view; they are taught in the same scholarly and objective spirit as the other courses in the University, and aim at understanding a pervasive human phenomenon. They are grouped into two types of courses: historical studies and systematic studies (see below). 200-level courses require sophomore standing (28 or more credits); 300-level courses require this also, plus one previous course in Religious Studies at Oakland.

At present, the Program offers a Concentration in Religious Studies, consisting of at least 20 credits in Religion, which must be taken jointly with a modified major (24 credits) in either Philosophy or Sociology-Anthropology. It is expected that several other combinations will be available soon, and that Religious Studies will become a Department offering a full major in two or three years. In the meantime, students wishing to make Religion the focus of an Independent Concentration will receive the support of the Committee on Religious Studies.

Policy regarding transfer credits

Credit will generally be given for courses taken in accredited colleges when the content of those courses is demonstrably similar to the content of a course offered in the Religious Studies Program of Oakland University. Credit will generally not be given for courses taken at an unaccredited institution or for courses with a content for which Oakland University has no reasonable substitute. The content, not simply the title, of the course must be described by a student seeking transfer of credits.

ARTS AND SCIENCES

Course Offerings

Historical Studies:

REL 200 Topics in the Historical Study of Religion

The topic varies. Sample topics include: The New Testament, Medieval Mysticism, Early Buddhism, The Protestant Reformation, Christ and Caesar, 18th and 19th Century Attacks on Religion. May be repeated for credit.

REL 201 Religions of the Ancient World

Myths, rituals, and religious ideas in the ancient Near East, Greece, and Rome. Offered every two years.

REL 202 The Jewish Tradition

Selected ideas and institutions in the development of Judaism from its pre-exilic roots to the present. Identical with PHL 202. Offered every two years.

REL 203 The Christian Tradition

Study of the most important Christian ideas and institutions from Jesus to the present. Offered every two years.

REL 204 The Islamic Tradition

Selected ideas and institutions in the history of Islam. Offered every two years.

REL 211 Old Testament Literature

A study of the types of literature found in the Old Testament. Identical with ENG 211 and CLS 211. Offered every two years.

REL 250 Philosophies and Religions of Asia

A study of the major religions of India, China, and Japan with emphasis on their philosophical significance. The course will cover Hinduism, Jainism, Confucianism, Taoism, and Buddhism (with special reference to Ch'an or Zen) and will deal with both the ancient traditions and some modern developments. Identical with PHL 250. Offered every year.

REL 287 American Religious History

A study of the religious history of the American people with an emphasis on social aspects. Within the general outline of chronological development, attention is given to such selected topics as Religious Elements in Immigration, the Separation of Church and State, Denominationalism and Sectarianism, Religion and Nationalism, Religious Leadership, and Religion as an influence in Social Change. Identical with HST 307. Offered each winter.

Prerequisites: Two courses in American history, or permission of Instructor.

Systematic Studies:

REL 220 Topics in the Systematic Study of Religion

The topic varies. Sample topics include: Mythology, Psychoanalysis and Religion, Religion and Education, Types of Religious Communities, Shamanism, the Hero. May be repeated for credit.

REL 225 Philosophy of Religion

Examination of arguments for and against the existence of God, the nature of religious language, the role and structure of religious concepts, the relations between religion and philosophy. Identical with PHL 225. Offered every two years.

ARTS AND SCIENCES

REL 227 Psychology of Religion

Basic data of religious experience in its relation to motivation, cognitive structure, and personality; problems of religious symbolism, verbal and nonverbal; dynamics of religious movements; growth, propagation, and preservation of orthodoxy; varieties of reform. Offered every two years.

REL 229 Religion and Literature

Study of a few masterpieces of world religious literature, such as Greek tragedy, Hindu epic, Dante, Milton, with an attempt to generalize about the use of religious themes in literature, and about literature as an expression of religious belief. Offered every two years.

REL 271 Magic, Witchcraft, and Religion

A study of man's social and personal interaction with beings, creatures, and forces who manifest powers beyond those of ordinary people. The folk beliefs of non-literate people will be given special attention; the transformation of social systems by religious movements will be investigated; and anthropological theories of magic, witchcraft, and religion will be examined as they relate to these and other topics. Identical with AN 271. Offered every two years.

REL 275 Sociology of Religion

An analysis of the changing relationship between social structure and religion. Comparative materials will be examined from pre-industrial societies, Europe during the Protestant Reformation, and the contemporary United States. Identical with SOC 305. Irregularly scheduled.

Prerequisite: UC 058 or permission of the Instructor.

REL 390 Directed Readings in the Study of Religion

Individual study of a topic not covered by regular courses, with the guidance of a faculty tutor.

Prerequisite: Consent of the tutor.

Suggested collateral courses:

CLS 312: Classical Mythology. Identical with ENG 312.

HST 325: Medieval Europe.

HST 397: The Second Jewish Commonwealth. Identical with CLS 397.

PHL 205: Hellenistic and Medieval Philosophy.

PHL 355: Existentialism.

SOCIAL STUDIES PROGRAM

Requirements for the Secondary Teaching Major in Social Studies

This major is intended for students who plan to teach social studies in junior or senior high school and is designed to provide a broad background in the social sciences and related fields. This program is currently undergoing extensive revision. More work in a variety of social sciences, more options for major and minor

ARTS AND SCIENCES

concentrations, and the introduction of field service components in many courses are part of the changes now taking place. **Social Studies 100, Introduction to Social Sciences** is required as the basic course in the program. This course may be used to satisfy the general education distribution requirement in Social Science. Students interested in a social studies teaching major should consult with the Program Director so that they may plan their course work in proper sequence.

Requirements for the Teaching Minor in Social Studies

The minor requires a minimum of 24 credits selected from courses offered by the social science departments or courses in area studies, geography, or history and philosophy. Students majoring in history who wish to elect a social studies minor must confer with the Office of the Director of the Social Studies Program.

SS 100 Introduction to Social Sciences (4 credits)

This introductory course to an interdisciplinary program in social science provides an overview of the philosophical and historical development of individual social science disciplines (psychology, sociology, anthropology, political science, history, economics, and geography). Students examine key concepts, methods, and scholarly literature in these fields and apply their work to selected current issues through interdisciplinary models.

SS 570 Social Studies in the Elementary School (4 credits)

An intensive study of current trends, challenges, characteristics, and content of effective social studies programs, with emphasis on the relationships among discipline areas comprising the social studies. The course will stress application of these studies in urban area elementary schools.

Prerequisites: Education 245 and acceptance into a graduate or certification program or major standing in elementary education.

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 College, an independent study program, and a Community Service course sequence.

There have been six one-semester overseas study programs sponsored by the University in the last four years, including pro-

ARTS AND SCIENCES

grams in Mexico, Hong Kong, and various areas of western Europe. No department or curriculum at Oakland requires students to study abroad at any time, nor does any department sponsor a regular agenda of overseas study programs. Rather, the departments and faculties sponsor these programs on an ad hoc basis, the time and format of the individual projects reflecting the interests and qualifications of the faculty sponsors and the student participants. Proposals for overseas study programs are reviewed by the Committee on Overseas Study Programs, which counsels the prospective faculty and student participants on the ways and means of maximizing the benefits of such programs; helps the faculty sponsors design proposals consistent with the general standards of the University; and helps departmental chairmen, deans, and the Provost assess the relevance, quality, and feasibility of such proposals.

A special off-campus program is part of the curriculum of New College and is open only to students of that college. This field term component, implemented in the second semester of the sophomore year, entails individually designed work-study projects.

A third option is an off-campus independent study program open to all students in good standing who have successfully completed two semesters at Oakland University. This program allows a student to propose his or her own course of study for the semester 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.

ARTS AND SCIENCES

(6) Whenever credit is sought toward the completion of a major, the department, through its chairman, must agree to the value of the independent work.

(7) The Dean of Students' Office will require a release from parents absolving the University of responsibility for the well-being of students under twenty-one years of age while they are participating in off-campus independent study.

(8) The initial approval of a program for a student will be for one semester with the provision that the student may request an extension of the program for additional semesters.

(9) The student must be registered at Oakland University and pay the required fees during the period of independent study.

A course sequence entitled CS 201-202 (Community Service) (8 credits each) represents a fourth alternative for off-campus learning. See p. 283 for course descriptions.

Both 8-credit courses are devoted primarily to volunteer service activities in Oakland, Wayne, and Macomb Counties. A regular but modified schedule of class meetings and a series of academic assignments are also required to support the experiential service-learning in the field. Students work approximately 10 to 15 hours a week in a service activity of their own interest, as approved by the instructor and the placement coordinator of the program. Placements will be made with groups, organizations, and agencies concerned with various aspects of the social, political, psychological, educational, and ecological needs and interests of the community.

Community Service is open to all students who have completed at least 28 credits and compiled a cumulative grade point average of 2.0, or who have received the permission of the instructor and the placement coordinator. The course will be graded on an "S" (Satisfactory) or "N" (No grade) basis.

The program is not intended to serve the disciplinary or vocational interests of students. Rather students will be encouraged to pursue community service activity in general, and specific placements in particular, primarily in terms of how such activities can better serve their desire to integrate reflection and action, their interest in a broad concept of general education, and their personal rather than disciplinary motivation to make a contribution to responding to community need. Students will work under the direction of a particular professor only insofar as the

ARTS AND SCIENCES

training and skills of a given professor are most likely to complement and thus aid the community service interests of the student.

Students interested in overseas study programs sponsored by other universities and organizations, both domestic and foreign, should contact the Overseas Study Information Center located in the Office of the Dean of Students. Information on work-study opportunities sponsored by institutions other than Oakland University can be obtained from the Placement Office.

MISCELLANEOUS COURSES

COMMUNITY SERVICE

CS 201-202 Community Service (8 credits each)

A program devoted primarily to volunteer service activity in the local community. A regular but modified schedule of class meetings and a series of academic assignments will also be required. Students will be placed in a service activity of their own interest, as approved by the instructor and the placement coordinator of the program. Admission is by application only, as submitted during the semester preceding enrollment in the course.

Prerequisites: A minimal grade point average of 2.0 and the completion of at least 28 credits prior to enrollment, or the permission of the instructor and the placement coordinator.

GEOGRAPHY

GEO 200 Geography (4 credits)

A general survey of selected regions of the world with an emphasis on the problems of political geography, but including aspects of cultural and economic geography.

SCIENCE

Requirements for the Teaching Minor in Science

The minor requires a minimum of 24 credits, selected from courses offered by the Departments of Biological Sciences, Chemistry, and Physics. Course selections must cover two of the three disciplines and must include 12 credits in each discipline applied to the minor. Hence the following options are available: chemistry-biology; chemistry-physics; biology-physics. All courses must be at the levels of BIO 111, CHM 104, PHY 101, or above, and they may not include courses in the discipline of the student's major.

SCI 131, 132, 133, 134 Basic Topics in Current Science (1 credit each)

Designed for non-science majors, these four 3½ week mini-courses deal with relevant areas of 20th century science. Graded S/N.

ARTS AND SCIENCES

SCI 141-142 Basic Scientific Methods (4 credits each)

These courses, available to freshmen and sophomores, are designed for those who have little previous experience with science courses but may wish to explore the possibility of majoring in physics, chemistry or biology. Each student will be given the opportunity to develop his/her scientific skills through classroom and laboratory work. The emphasis will be on asking, and seeking answers to, scientific questions about the world of our immediate physical experience. Problem-solving skills and measurement techniques as needed for passing science-departments' courses are the objectives.

Prerequisite: One year of high school algebra recommended.

SCI 141 Techniques of problem solving, mathematical logic and quantitative calculation, and experimental observations. Basic principles of physics and chemistry applied to observed phenomena-crystals, light, gases, matter in motion.

SCI 142 Practice in scientific problem solving and experimental observations. Principles related to atoms and molecules, electrical charge, and properties of materials.

SCI 305 Science in the Elementary School (4 credits)

Content and methodology appropriate to students in the elementary education program.

Prerequisite: Major standing in elementary education.

SCI 505 Basic Concepts and New 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 510 Environmental Education—Seven Ponds (4 credits)

Begins June 14, 9:00 a.m. at Seven Ponds Nature Center. Study of basic principles of conservation and natural resources management, to understand the relationships of modern man to the natural environment. Elementary ecology is followed by studies of population, pollution, forestry, soil conservation, water utilization, and recreation. Guest speakers are professionals from government and industry involved in land-use planning and problems. For teachers and anyone concerned with environmental education; science background not necessary. Full-time, daily, for three weeks of outdoor field work, lectures, and demonstrations, plus one week of independent study. Students pay for supplies and transportation on field trips. Registration limited. Students must reserve a place in the class by application to Director, Seven Ponds Nature Center, 3854 Crawford Road, Dryden, Mich. 48428. Registration and fee payments at first class meeting.

SCI 515 Environmental Education—Higgins Lake (2 credits)

Conducted under the auspices of the Michigan Department of Natural Resources at the Higgins Lake Conservation School. Staffed by DNR personnel and faculty members from Michigan universities. Aims to provide information and methodology for the educator on land use, water resources, types of pollution, and other aspects of the environment. Treats contemporary problems with scientific analysis in a socio-economic context. Would propel the educator into an action phase in his own community. A resident course for one week, Sunday p.m. through Friday. Available for any one of five weeks during the summer. Details available.

COOPERATIVE ARRANGEMENT WITH THE MIDRASHA COLLEGE OF JEWISH STUDIES

A number of courses related to Hebraic culture and civilization, in cooperation with the Midrasha College of Jewish Studies, began in the academic year 1970-71. It is anticipated that further instruction will be offered to present a systematic analysis of the historic and contemporary experiences of the Jewish people, as reflected in the literature, philosophy, religion, language, and social patterns of many countries and civilizations.

The Midrasha is an undergraduate institution located in Southfield, Michigan, which specializes in Hebraic and Judaic studies. The College provides intensive academic and professional training and grants both the degree of Bachelor of Hebrew Literature and the degree of Bachelor of Jewish Studies.

The courses offered through this cooperative arrangement do not represent a separate or distinct program or major field of concentration. Rather courses in such subjects as Old Testament literature, the ancient Near East, contemporary Jewish philosophical thought, and the Hebrew language will be offered within existing programs sponsored by the Departments of Classical Languages and Literatures, English, History, Modern Languages and Literatures, and Philosophy.

GRADUATE STUDIES IN THE COLLEGE OF ARTS AND SCIENCES

The following departments offer instruction leading to the degree of Master of Arts:

- English
- Mathematics
- Psychology

The following departments offer instruction leading to the degree of Master of Science:

- Chemistry
- Physics

The following departments, jointly with the School of Education, offer instruction leading to the degree of Master of Arts in Teaching:

- English
- Mathematics

For further information concerning these programs, see the *Graduate Bulletin*.



SCHOOL OF ECONOMICS AND MANAGEMENT

OFFICERS OF ADMINISTRATION

NORTON C. SEEBER

Dean

OFFICERS OF INSTRUCTION

DONALD D. O'DOWD

President

A.B., Dartmouth College; M.A., Harvard University;
Ph.D., Harvard University

FREDERICK W. OBEAR

Vice President for Academic Affairs

B.S., Lowell Technological Institute;

Provost

Ph.D., University of New Hampshire

ELEFTHERIOS N. BOTSAS (on leave Winter 1973)

B.S., University of Detroit;

Chairman, Department of
Economics

M.A., Wayne State University;

Ph.D., Wayne State University

Associate Professor of

Economics and Management

DANIEL N. BRAUNSTEIN

Associate Professor of Economics
and Psychology

A.B., Cornell University;

M.S., Purdue University;

Ph.D., Purdue University

WILLIAM R. CRON

Instructor in Economics and
Management

B.S., University of Detroit;

M.A., University of Detroit

DAVID P. DOANE

Assistant Professor of Economics

B.A., University of Kansas; M.S., Purdue University;

Ph.D., Purdue University

ALICE G. GORLIN

Instructor in Economics

B.S., Wellesley College;

M.A., University of Michigan

KARL D. GREGORY

Associate Professor

B.A., Wayne State University;

of Economics and Management

M.A., Wayne State University; Ph.D., University of Michigan

ROBBIN R. HOUGH

Professor
of Economics and Management

B.A., Montana State University;

Ph.D., Massachusetts Institute of Technology

ECONOMICS AND MANAGEMENT

JOHN HURD II (on leave 1972-73) Assistant Professor of Economics
B.A., Yale University; Ph.D., University of Pennsylvania

SIDDHESHWAR MITTRA (on leave 1972-73)
B.Com., Agra University (India); Professor of Economics
M.Com., Agra University (India); Ph.D., University of Florida

GADIS NOWELL Assistant Professor of Management
B.A., Morris Brown College; M.B.A., Atlanta University

LON POLK Assistant Professor of Economics
B.A., San Jose State College; Ph.D., University of Michigan

RICHARDS M. REESE Assistant Professor of
Management
B.B.A., University of Texas at Austin;
M.B.A. University of Texas at Austin;
Ph.D., University of Texas at Austin

NORTON C. SEEBER Dean, School of Economics and Management
Professor of Economics and Management
B.S., University of Colorado; M.A., University of Colorado;
Ph.D., University of California (Berkeley)

HARVEY A. SHAPIRO Assistant to the Dean
B.S., Carnegie-Mellon University Special Instructor in Management

JOHN E. TOWER Assistant Professor
of Economics and Management
B.S.E., University of Michigan;
M.B.A., University of Michigan;
Ph.D., State University of New York at Buffalo

FRANCIS M. WEBSTER Lecturer in Management
B.S., University of Missouri;
M.S.I.A., Carnegie-Mellon University

THEODORE O. YNTEMA Visiting Professor
of Economics and Management
A.M., University of Illinois;
A.M., University of Chicago; Ph.D., University of Chicago;
C.P.A. (Illinois)

KENNETH C. YOUNG Assistant Professor
of Economics and Management
B.A., Carson-Newman College;
M.B.A., Harvard University; M.S., Purdue University;
Ph.D., Purdue University

The School of Economics and Management offers a program in management leading to the degree of Bachelor of Science.

ECONOMICS AND MANAGEMENT

For students with special interests, the School also offers an independent concentration leading to the degree of Bachelor of Science. (See pp. 295-296.) In addition to these degree programs, the economics faculty of the School administers the liberal arts program in economics leading to the degree of Bachelor of Arts in the College of Arts and Sciences. Descriptions of these degree programs follow.

UNDERGRADUATE PROGRAM LEADING TO THE BACHELOR OF SCIENCE IN MANAGEMENT

The management program provides an education for management (i.e., the effective use of resources for defined objectives) rather than an education which describes the practices and institutions of business. Our program aims to develop the transferable skills which make adaptive and innovative learners, and it enables graduates to understand and manage changing situations, whether these be in profit-oriented enterprises or in private or public not-for-profit enterprises. In this program, a general education is combined with the development of analytical approaches which will enable the student to devise new answers to the increasingly complex and changing problems faced by managers and technical personnel in both private business and public organizations. Because education for management is a continuing process throughout a management career, the program seeks to give students the kind of experience that will provide the foundation for adaptability within our rapidly changing modern environment.

The management major obtains the background necessary for entering industry training programs or graduate schools of management, as well as for initial entry into many positions in business, government, and administration. The program's emphasis on analysis and analytical tools, such as the computer, opens the way to positions in many areas characterized by rapidly developing technology and expanding employment opportunities.

CURRICULUM CHANGES

As part of the continuing process of growth at Oakland University, the curriculum in management has undergone recent changes.

The curriculum described below will be effective for students entering the University in 1972-73 and after. Students enrolled prior to 1972 may, at their option, satisfy either the present or

ECONOMICS AND MANAGEMENT

the older requirements for graduation (but they need not satisfy both sets of requirements). Further amplification of this rule and any other curriculum changes may be obtained from departmental advisers.

PROGRAM IN MANAGEMENT

The normal program in management consists of five parts:

	Courses	Credits	Percentage of Total Credits
1. General Education (Including Two Courses in Learning Skills)	9	36	29%
2. Management Major Requirements:			
a. Cognate Courses in Economics and Mathematics	5	20	16%
b. Management Core Program	9	30	24%
c. Management/Economics Electives	4	16	13%
3. Electives	6	22	18%
	<hr/>	<hr/>	<hr/>
TOTAL FOR DEGREE	33	124	100%

The various parts of the program are explained in the following sections.

GENERAL EDUCATION

Oakland University requires all undergraduates in degree programs to participate in a set of courses designed to provide a broad intellectual experience in liberal education. Management students usually satisfy this general education requirement by meeting the requirements described below or by participating in the program of Allport College, Charter College, or New College.*

The School of Economics and Management requires that each student take at least seven courses (28 credits) in general education, distributed as follows:

(1) Learning Skills (0-8 credits)

The student must obtain a certificate of proficiency in English composition from the Department of Learning Skills. The student may obtain this certification by passing an examination upon entering Oakland; otherwise he will be required to take courses in the De-

*See this catalog pp. 98-107. Management students electing one of the other options should plan their programs carefully, and they may find their freedom to choose electives limited.

ECONOMICS AND MANAGEMENT

partment of Learning Skills until he earns the certification of proficiency in English (normally two courses).

(2) Distribution Requirements

The student must take at least one course in each of the following four fields within the College of Arts and Sciences.

(a) Arts (4 credits)

Any course for which the student qualifies that is offered by the departments of Art History, Studio Art, or Music, or UC 045 (Introduction to Theater).

(b) Letters (4 credits)

Any course for which the student qualifies that is offered by the departments of English, History, Philosophy, or Religious Studies, or any course in literature offered by the departments of Classics and Modern Languages and Literatures, or SCN 310 (Philosophy of Rhetoric), or ED 244 (Social and Philosophic Issues in Education).

(c) Natural Sciences (4 credits)

Any course for which the student qualifies that is offered by the departments of Biology, Chemistry, or Physics, or any course in Science or Environmental Studies (except ENV 151).

(d) Area Studies (4 credits)

Any one of the following introductory Area Studies courses: China (UC 062), Japan (UC 063), Africa (UC 064), India (UC 066), Latin American (UC 068), and the Slavic World (UC 070).

(3) Distribution Elective (4 credits)

In addition to the courses required above, the student must elect **one** more general education course from the four fields listed above or from the courses in Symbolic Systems. The Symbolic Systems field covers any course from the following departments not required for the management major and for which the student qualifies: Computer and Information Science, Mathematics, Linguistics, and the language courses offered by the departments of Classics and Modern Languages.

(4) Social Science (8 credits)

The student must take **2** courses for which he qualifies from one of the following social sciences departments: Political Science, Psychology, Sociology, Anthropology, and Speech Communication (except SCN 310).

These distribution courses are normally taken throughout the student's semesters of study.

ECONOMICS AND MANAGEMENT

MANAGEMENT MAJOR REQUIREMENTS

Economics and Mathematics Cognate Courses

To obtain a basic set of skills useful in management, the student is required to take the following:

		Credits
ECN 100-101	Introduction to Economics I and II	8
ECN 216	Microeconomic Analysis	4
MTH 121-122	Introductory Mathematics for the Life and Social Sciences or MTH 154-155 (Calculus)	8
	TOTAL	20

The mathematics and quantitative methods requirement for a degree in management consists of two parts. The first part is a 2-course sequence (MTH 121-122 or MTH 154-155), designed to develop the fundamental mathematical skills used in subsequent courses in the management program. Depending upon the results of placement testing, some students may be advised to take MTH 120 before beginning the MTH 121-122 sequence or they may be advised to take MTH 134 before beginning the MTH 154-155 sequence.

The second part of this requirement consists of one course in intermediate-level quantitative methods. To meet this requirement, the student may select any one of the following courses as part of the Management Core Program: MGT 340, MGT 305, MGT 442, ECN 405, or MTH 322.

The appropriate choice from the above alternatives will depend upon the student's overall educational and career plans. Students who expect to go on to graduate school should obtain as strong a foundation in economics, mathematics, and quantitative methods as possible. Toward this goal, it is suggested that such students take the MTH 154-155 sequence (Calculus), followed later either by MGT 340 or by MTH 322.

All students are urged to consult a faculty adviser as early as possible concerning their programs.

Management Core Program

The required management core program consists of the following courses:

ECONOMICS AND MANAGEMENT

		Credits
MGT 200	Management Information and Control Systems I (Managerial Accounting)	4
MGT 201	Computer Laboratory for MGT 200	1
MGT 210	Management Information and Control Systems II (Statistics)	4
MGT 211	Computer Laboratory for MGT 210	1
MGT 300	Management Systems Analysis	4
MGT 330	Organizational Behavior I	4
MGT 331	Organizational Behavior II	4
MGT 435	Management Strategies and Policies	4
Choice of a Quantitative Methods course:		4
MGT 340	Quantitative Methods of Management Science	
MGT 305	Computer Systems for Problem Solving	
MGT 442	Operations Research	
ECN 405	Econometrics	
MTH 322	Mathematical Models in the Social Sciences	
TOTAL IN MANAGEMENT CORE PROGRAM		30

Management/Economics and Social Science Electives

The student completes work in management by electing four additional courses (16 credits) offered by the School of Economics and Management. It is recommended that the student take at least one elective from those based on macroeconomics: either ECN 217, ECN/MGT 303, or ECN/MGT 321.

Electives

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

Modifications to the management program may be sought by petitioning the Committee on Instruction of the School of Economics and Management. If the requested changes to the above program are significant, the Committee may ask the student to work toward a Bachelor of Science with an independent concentration. (See pp. 295-296.)

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN MANAGEMENT

A student with a major in management must meet the following requirements in order to graduate:

ECONOMICS AND MANAGEMENT

1. Have completed at least 124 credits.
2. Have completed 32 credits at Oakland University. A student must normally be registered at Oakland University for at least 8 credits during the semester in which the degree is to be conferred.
3. Have a cumulative grade point average of at least 2.0 in courses taken at Oakland University and in courses in the Major.
4. Have completed at least 8 credits in electives.
5. Have completed the program detailed above under General Education and Management Major Requirements.
6. Be in substantial compliance with all legal curricular requirements.

REQUIREMENTS FOR MAJOR STANDING

Admission to major standing requires: (a) certification in English proficiency; (b) the completion of ECN 100-101, ECN 216, MGT 200-201, and MTH 121-122 (or equivalent); (c) the completion of 56 credits; and (d) a cumulative grade point average of 2.0 overall and in management courses.

BACHELOR OF SCIENCE IN MANAGEMENT

(A Typical Program)

Semester 1

Learning Skills (if required)

/Elective

ECN 100

MTH 121 (or MTH 154)

Distribution Requirement

Semester 3

MGT 200 and 201

ECN 216

MGT 330

Distribution Requirement

Semester 5

MGT 300

MGT/ECN Elective

Social Science

Distribution Requirement

Elective

Semester 2

Learning Skills (if required)

/Elective

ECN 101

MTH 122 (or MTH 155)

Distribution Requirement

Semester 4

MGT 210 and 211

MGT 331

Distribution Requirement

Elective

Semester 6

Quantitative Methods Course
(MGT 340, MGT 305, MGT
442, ECN 405, or MTH 322)

MGT/ECN Elective

Social Science

Distribution Requirement

Elective

ECONOMICS AND MANAGEMENT

Semester 7

MGT/ECN Elective
Distribution Elective
Elective
Elective

Semester 8

MGT 435
MGT/ECN Elective
Elective

UNDERGRADUATE PROGRAM LEADING TO THE BACHELOR OF SCIENCE (INDEPENDENT CONCENTRATION)

Students wishing to pursue special interests may develop an independent concentration leading to the degree of Bachelor of Science in the School of Economics and Management. This independent concentration will be designed by the student and one or more faculty advisers. A Plan of Work is to be submitted as early as possible by the student and his or her advisers to the Committee on Instruction. The approval of the Plan of Work by the Committee is required for all independent concentrations and for any deviation from the Plan of Work.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE WITH AN INDEPENDENT CONCENTRATION

A student with an independent concentration must meet the following requirements in order to graduate:

1. Have completed at least 124 credits.
2. Have completed 32 credits at Oakland University. A student must normally be registered at Oakland University for at least 8 credits during the semester in which the degree is to be conferred.
3. Have a cumulative grade point average of at least 2.0 in courses taken at Oakland University and in courses in the Concentration.
4. Have completed at least 8 credits in electives.
5. Have obtained certification of his/her English proficiency.
6. Have completed at least 28 credits in the General Education Program detailed above, or have completed an equivalent number of credits in Allport College, Charter College, or New College.
7. Have successfully completed a Plan of Work that was developed with a faculty adviser or advisers and that was approved

ECONOMICS AND MANAGEMENT

by the Committee on Instruction of the School of Economics and Management.

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

REQUIREMENTS FOR MAJOR STANDING

Admission to major standing requires: (a) certification in English proficiency, (b) a total of 56 credits completed, (c) a cumulative grade point average of 2.0 or better, and (d) an approved Plan of Work.

UNDERGRADUATE PROGRAM LEADING TO THE BACHELOR OF ARTS IN ECONOMICS

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

The liberal arts program in economics leads to the degree of Bachelor of Arts and is offered in the College of Arts and Sciences under the direction of the faculty in economics of the School of Economics and Management. Students taking liberal arts majors, including the economics major, must satisfy the appropriate degree requirements in the College of Arts and Sciences as described in this catalog. The College of Arts and Sciences requirements for Economics Majors are specified in the program description below.

PROGRAM IN ECONOMICS

The normal program in economics consists of five parts:

	Courses	Credits	Percentage of Total Credits
1. General Education (including two Learning Skills Courses)	8	32	26%
2. Economics Major Requirements:			
a. Cognate Courses in Mathematics and the Social Sciences	4	16	13%
b. Economics Core Program	7	25	20%
c. Economics Electives	3	12	10%
3. Electives	10	39	31%
	—	—	—
TOTAL FOR DEGREE	32	124	100%

ECONOMICS AND MANAGEMENT

The various parts of the program are explained in the following sections.

GENERAL EDUCATION

Oakland University requires all undergraduates in degree programs to participate in a set of courses designed to provide a broad, intellectual experience in liberal education. Economics students can satisfy this general education component by meeting the requirements of the College of Arts and Sciences or by participating in the program of Allport College, Charter College, or New College (see pp. 98-107 of this catalog for details of these inner colleges). The College of Arts and Sciences general education requirements, as they apply specifically to economics majors, are described below.

The College of Arts and Sciences requires that the economics major take at least 6 courses (24 credits) in general education, distributed as follows:

(1) Learning Skills (0-8 credits)

The student must obtain a certificate of proficiency in English composition from the Department of Learning Skills. The student may obtain this certification by passing an examination upon entering Oakland; otherwise, he will be required to take courses in the Department of Learning Skills to earn this certification (normally 2 courses).

(2) Distribution Requirements (12 credits)

The student must take at least one course in 3 of the following four fields within the College of Arts and Sciences:

(a) Arts (4 credits)

Any course for which the student qualifies that is offered by the departments of Art, History, Studio Art, or Music, or UC 045 (Introduction to Theater).

(b) Letters (4 credits)

Any course for which the student qualifies that is offered by the departments of English, History, Philosophy or Religious Studies, or the literature courses of the departments of Classics and Modern Languages and Literatures, or SCN 310 (Philosophy of Rhetoric), or ED 244 (Social and Philosophical Issues in Education).

(c) Natural Sciences (4 credits)

Any course for which the student qualifies that is offered by the departments of Biology, Chemistry, or Physics, or any course in Science or Environmental Studies (except ENV 151).

ECONOMICS AND MANAGEMENT

(d) Area Studies (4 credits)

Any one of the following introductory Area Studies courses: China (UC 062), Japan (UC 063), Africa (UC 064), India (UC 066), Latin America (UC 068), and the Slavic World (UC 070).

(3) Distribution Electives (12 credits)

In addition to the courses required above, the student must elect 3 more general education courses from the four fields listed above or from the courses in Symbolic Systems. The **Symbolic Systems** field covers any course for which the student qualifies which is not required for the major and offered by the following departments: Computer and Information Science, Mathematics, Linguistics, or the language courses offered by the departments of Classics and Modern Languages. The student is limited to using a total of 3 courses in a field including required courses, to meet this requirement.

These distribution courses are normally taken throughout the student's semesters of study.

ECONOMICS MAJOR REQUIREMENTS

Mathematics and Social Science Cognate Courses

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

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

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

ECONOMICS AND MANAGEMENT

Economics Core Program

The required economics program consists of the following courses:

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

Economics Electives

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

Electives

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

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

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS IN ECONOMICS

A student with a major in economics must meet the following requirements in order to graduate:

1. Have completed at least 124 credits.
2. Have completed 32 credits at Oakland University. A student must normally be registered at Oakland University for at least 8 credits during the semester in which degree is to be conferred.
3. Have a cumulative grade point average of at least 2.0 in courses taken at Oakland University and in courses in the major.

ECONOMICS AND MANAGEMENT

4. Have completed at least 8 credits in electives.
5. Have completed the program detailed above under General Education and Economics Major Requirements.
6. Be in substantial compliance with all legal curricular requirements.

REQUIREMENTS FOR MAJOR STANDING

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

LIBERAL ARTS MAJOR IN ECONOMICS

(A Typical Program)

Semester 1

Learning Skills (if required)

/Elective

MTH 121 (or MTH 154)

ECN 100

Distribution Requirement

Semester 3

ECN 216

ECN 210 and 211 (or MGT 210 and 211)

Distribution Requirement

Elective

Semester 5

Economics Elective

Social Science Requirement

Distribution Requirement

Elective

Semester 7

Economics Elective

Elective

Elective

Elective

Semester 2

Learning Skills (if required)

/Elective

MTH 122 (or MTH 155)

ECN 101

Distribution Requirement

Semester 4

ECN 217

Distribution Requirement

Social Science Requirement

Elective

Semester 6

Economics Elective

Distribution Requirement

Elective

Elective

Semester 8

ECN 480 (or ECN 418)

Elective

Elective

COURSE OFFERINGS IN MANAGEMENT

Under special circumstances, the prerequisites may be waived.

MGT 100 Management: What Is It? (4 credits)

An introduction to the character of management activities and the environment in which these take place; the individual and the firm viewed as utility-maximizing

ECONOMICS AND MANAGEMENT

MGT 305 Computer Systems for Problem-Solving (4 credits)

This is an advanced communications and problem-solving course in which students learn how to specify and design systems for computers. The course consists of field studies by groups of students which will lead to computerized prototype solutions of "real-world" problems. Oral and written skills will be stressed in the preparation of all the material by the groups.

Prerequisite: Programming experience in a higher level language (i.e., BASIC or FORTRAN).

MGT 322 Capital Markets (4 credits)

Analysis of the operation of major financial institutions and markets. Sources and uses of funds for corporations and other organizations. Identical with ECN 322.

Prerequisites: ECN 216 or equivalent.

MGT 324 Business in the American Economy (4 credits)

Public attitudes toward, and government regulation of, business; social and legal responsibilities of business. Identical with ECN 324.

Prerequisites: ECN 216 or equivalent.

MGT 325 Industrial Organization (4 credits)

Resource patterns, production processes (including technology and economies of scale), and managerial organization as related to the size of firms and the location of industries. Identical with ECN 325.

Prerequisites: ECN 216 or equivalent.

MGT 330 Organizational Behavior I (4 credits)

Individual Behavior in Organizations. An exploration of relationships between individuals and organizations. Applications from general social and industrial psychology to the management of work performance evaluation, supervision, influence of informal work groups, and behavioral change are surveyed both empirically and theoretically. In all cases, development of the student as an analytical consumer of behavioral data will be stressed. Identical to PSY 235. Ordinarily offered in the Fall Semester.

MGT 331 Organizational Behavior II (4 credits)

Social Psychology of Organization Behavior. Implications for organizational management of group behavior. Theoretical and empirical approaches to issues such as communication, decision-making, power and authority, conflict, organizational change, leadership, and organizational climate. Emphasis will be placed on developing the student as an analytical consumer of data. Identical to PSY 236. Ordinarily offered in the Winter Semester.

Prerequisites: MGT 330 or equivalent.

MGT 333 Labor-Management Relations (4 credits)

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

Prerequisites: ECN 216 or equivalent.

MGT 340 Quantitative Methods of Management Science (4 credits)

Applications of statistics, linear programming, and other quantitative techniques to management problems.

Prerequisites: MTH 122 and MGT 210, or equivalent.

ECONOMICS AND MANAGEMENT

MGT 342 Simulation in Management (4 credits)

An introduction to the use of simulation techniques in economic analysis.

Prerequisites: Major standing and permission of the Instructor.

MGT 402 Marketing and Consumer Behavior (4 credits)

Analysis of consumer behavior and its significance for market analysis. The relationship between market structure and marketing behavior.

Prerequisite: Permission of the Instructor.

MGT 430 Assessment of Organizational Behavior (4 credits)

Use of findings and methods of various behavioral research strategies as inputs for managerial problem-solving. Comparison of case, experimental, survey, correlational, and other approaches. Issues of reliability and validity of data, and research bias. Review of various methods of individual and organizational measurement devices, including industrial tests, morale surveys, etc. Practical experience in the collection and evaluation of data will be included.

Prerequisite: MGT 331.

MGT 431 Leadership and Group Performance (4 credits)

A comprehensive examination of different theories of leadership. Emphasis on relevant empirical evidence and application of the theories to case studies.

Prerequisite: MGT 331.

MGT 435 Management Strategies and Policies (4 credits)

Financial, economic, and other management tools used to analyze organizational case studies.

Prerequisite: 16 credits in management.

MGT 442 Operations Research (4 credits)

Operations research techniques are used in exploring problems selected from several areas of organizational and business analysis. Identical with ECN 442.

Prerequisites: ECN 216 or equivalent.

MGT 460 Independent Group Study (2 or 4 credits)

Students in this course determine which current economic issues are of interest to them and prepare a program for pursuing these issues in depth. The course consists primarily of student participation, but students may draw upon the faculty for consultation and direction. Although independent research is an integral part of the course, the major emphasis is on class discussion and analysis. Identical with ECN 460.

Prerequisite: Major standing.

MGT 490 Independent Research (2 or 4 credits)

Offered every semester.

Prerequisite: Permission of the Instructor.

BASIC COURSES

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

ECN 100 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

ECONOMICS AND MANAGEMENT

market system (microeconomics); c) elementary analysis of the determination of national income, employment, and the price level (macroeconomics); and d) the application of economic analysis to poverty, urban problems, international trade, environmental degradation, or other specific areas.

ECN 101 Introduction to Economics II (4 credits)

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

Prerequisite: ECN 100.

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

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

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

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

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

Prerequisites: MTH 122 or equivalent.

Corequisite: ECN 211.

ECN 211 Laboratory for ECN 210 (1 credit)

Use of computers in statistics. Ordinarily offered in the Fall Semester.

ECN 216 Microeconomic Analysis (4 credits)

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

Prerequisites: ECN 101 or equivalent.

Prerequisites or corequisites: MTH 122 or equivalent.

ECN 217 Macroeconomic Analysis (4 credits)

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

Prerequisites: ECN 101 or equivalent.

Prerequisites or corequisites: MTH 121 or equivalent.

ECONOMICS ELECTIVES

Economics electives provide an opportunity for the student to gain greater proficiency in the use of analytical tools, in the application of these tools to specialized problems, and in the investigation of current issues. Following is a list of economics electives which have been offered by members of the faculty in the past three years. Students should use this list as a guide to

ECONOMICS AND MANAGEMENT

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

ECN 223 The Indian Economy (4 credits)

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

ECN 225 American Economic History (4 credits)

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

Prerequisites: ECN 100 or equivalent.

ECN 300 Systems Analysis (4 credits)

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

Prerequisites: ECN 216 or equivalent.

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

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

Prerequisites: ECN 101 or equivalent.

ECN 308 Urban-Regional Economics (4 credits)

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

Prerequisites: ECN 100 or equivalent.

ECN 309 Metropolis: Problems and Policies (4 credits)

A survey of the economics of urban problems in the United States. Includes the analysis of urban poverty, land use, transportation, and environmental quality; discussion of the economics of political fragmentation and the nature of national urban policy; review of the state of the art in urban planning. Selected problems of the Detroit area economy are examined.

Prerequisites: ECN 100 or equivalent.

ECONOMICS AND MANAGEMENT

ECN 321 Monetary Theory and Policy (4 credits)

Analysis of modern monetary and banking theories. The course investigates both domestic and international monetary analysis and policies, and the relationship between monetary and fiscal policies as they affect the economy.

Prerequisites: ECN 101 or equivalent.

ECN 322 Capital Markets (4 credits)

Analysis of the operation of major financial institutions and markets. Sources and uses of funds for corporations and other organizations. Identical with MGT 322.

Prerequisites: ECN 216 or equivalent.

ECN 323 International Trade and Finance (4 credits)

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

Prerequisites: ECN 216 or equivalent.

ECN 324 Business in the American Economy (4 credits)

Public attitudes toward, and government regulation of, business; social and legal responsibilities of business. Identical with MGT 324.

Prerequisites: ECN 216 or equivalent.

ECN 325 Industrial Organization (4 credits)

Resource patterns, production processes (including technology and economies of scale), and managerial organization as related to the size of firms and the location of industries. Identical with MGT 325.

Prerequisites: ECN 216 or equivalent.

ECN 326 Economic Development (4 credits)

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

Prerequisites: ECN 100 or equivalent.

ECN 333 Labor-Management Relations (4 credits)

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

Prerequisites: ECN 216 or equivalent.

ECN 336 Economics of the Public Sector (4 credits)

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

Prerequisites: ECN 101 or equivalent.

ECN 342 Simulation in Economics (4 credits)

An introduction to the use of simulation techniques in economic analysis.

Prerequisites: Major standing and permission of the Instructor.

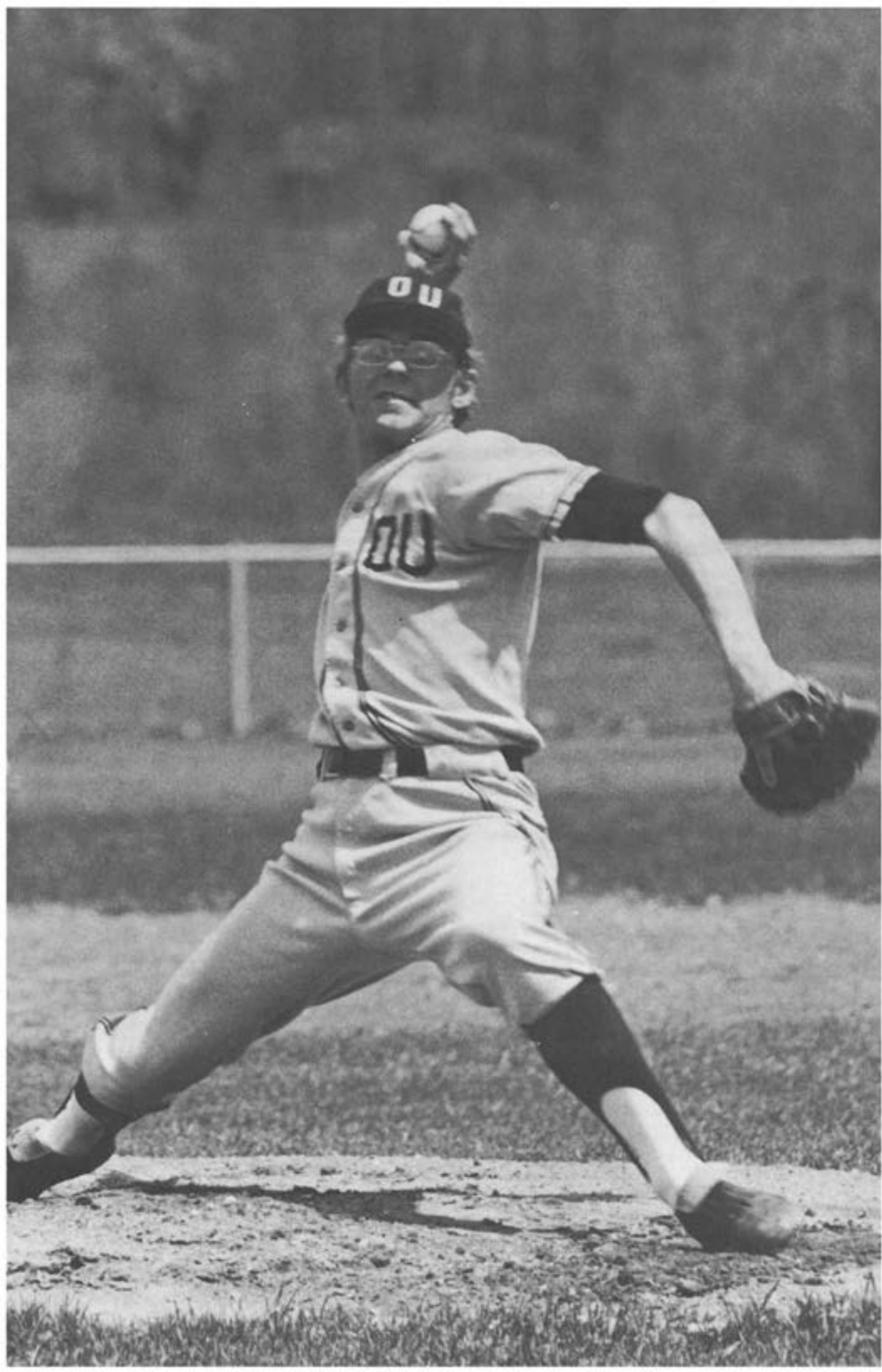
ECN 350 Economic Structures and Systems (4 credits)

A comparative analysis of the principles, structures, and ideologies of capitalism, socialism, and the command economy, with special emphasis on the processes of economic decision-making.

Prerequisites: ECN 216 or equivalent.

ECONOMICS AND MANAGEMENT

- ECN 405 Econometrics (4 credits)**
An introduction to the testing of economic models, expressed mathematically, by statistical methods.
Prerequisites: ECN 210, ECN 216, ECN 217 (or equivalent courses), and permission of the Instructor.
- ECN 417 Advanced Economic Theory (4 credits)**
This course covers selected topics in the economic theory of resource allocation, economic growth, and stability.
Prerequisites: ECN 216 and ECN 217, or equivalent.
- ECN 418 Selected Topics in Economic Policy (4 credits)**
Prerequisite: Major standing.
- ECN 442 Operations Research (4 credits)**
Operations research techniques are used in exploring problems selected from several areas of organizational and business analysis. Identical with MGT 442.
Prerequisites: ECN 216 or equivalent.
- ECN 460 Independent Group Study (4 credits)**
Students in this course determine which current economic issues are of interest to them and prepare a program for pursuing these issues in depth. The course consists primarily of student participation, but students may draw upon the faculty for consultation and direction. Although independent research is an integral part of the course, the major emphasis is on class discussion and analysis. Identical with MGT 460.
Prerequisite: Major standing.
- ECN 480 Seminar (4 credits)**
Theses, individual topics, and readings. Ordinarily offered in the Winter Semester.
Prerequisite: Major standing.
- ECN 490 Independent Research (2 or 4 credits)**
Offered every semester.
Prerequisite: Permission of the Instructor.



SCHOOL OF EDUCATION

OFFICERS OF ADMINISTRATION

LASZLO J. HETENYI	Dean
WILLIAM J. JORNS	Administrative Assistant to the Dean Associate Director of Student Teaching
CAROLYN E. ELLISON	Assistant Director of Student Teaching

OFFICERS OF INSTRUCTION

DONALD D. O'DOWD	President
A.B., Dartmouth College; M.A., Harvard University; Ph.D., Harvard University	Professor of Psychology
FREDERICK W. OBEAR	Vice President for Academic Affairs
B.S., Lowell Technological Institute; Ph.D., University of New Hampshire	Provost, Associate Professor of Chemistry

DEPARTMENT OF TEACHER EDUCATION

EDWARD A. BANTEL	Professor of Education and Psychology
B.A., Columbia University; M.A., Columbia University Ed.D., Columbia University	
RICHARD F. BARRON	Assistant Professor of Education
B.S., State University College at Genesee, New York; M.Ed., University of Arizona; Ph.D., Syracuse University	
E. HAROLD BENNETT	Special Instructor in Education
B.S., Appalachian State Teachers College; M.Ed., University of Michigan	
JANE M. BINGHAM	Assistant Professor of Education
B.A., Central Michigan University; M.A., Michigan State University; Ph.D., Michigan State University	
DELPHINE A. BOZARDT	Instructor in Education
B.S., University of Georgia; M.Ed., University of Georgia; E.Sp., University of Georgia	
DAVID C. BRICKER	Assistant Professor of Education Director of Undergraduate Programs
B.A., Amherst College; M.A.T., Johns Hopkins University; Ph.D., Johns Hopkins University	

EDUCATION

MARC E. BRIOD Associate Professor of Education
B.A., Haverford College; M.A., Northwestern University;
Ph.D., Northwestern University

HAROLD C. CAFONE Professor of Education
B.A., Brooklyn College; M.A., Columbia University;
Ed.D., University of Arizona

FREDERICK D. CHANDLER Assistant Professor of Education
B.A., Emmanuel College; M.A., University of Michigan;
Ph.D., University of Michigan

ROBERT J. CHRISTINA Assistant Professor of Education
B.S., Bloomsburg State College; M.S., Syracuse University;
Ph.D., Syracuse University

F. JAMES CLATWORTHY Assistant Professor of Education
B.A., University of Michigan; M.A., University of Michigan;
Ph.D., University of Michigan

GEORGE E. COON Professor of Education
B.A., Western Michigan University;
M.A., Western Michigan University; Ed.D., Wayne State University

RONALD L. CRAMER Professor of Education
Th.B., Baptist Bible Seminary; M.S., SUNY College of Cortland;
Ph.D., University of Delaware

JEAN L. EASTERLY Instructor in Education
B.S., Bradley University; M.A., University of Arizona

DOUGLAS C. FAIRBANKS Assistant Professor of Education
B.A., Michigan State University; M.A., Michigan State University;
Ed.D., Michigan State University

JOEL S. FINK Assistant Professor of Education
B.A., Boston University; B.J. Ed., Hebrew Teachers College;
Ed.M., Harvard Graduate School; Ph.D., Boston University

WILLIAM C. FISH Assistant Professor of Education
B.A., Amherst College; B.D., Yale University;
Ed.D., Columbia University

SIDNEY W. GRABER Associate Professor of Education
B.A., Wayne State University; M.A., Wayne State University;
Ed.D., Wayne State University

HARRY T. HAHN Professor of Education
B.A., Kutztown State College; M.Ed., Temple University;
Ed.D., Temple University

EDUCATION

- E. DORSEY HAMMOND** Associate Professor of Education
B.A., Washington College; M.Ed., University of Delaware;
Ph.D., University of Delaware
- BRUCE R. HARKER** Assistant Professor of Education
A.B., Oberlin College; M.A., University of Chicago;
Ph.D., University of Chicago
- LASZLO J. HETENYI** Professor of Education
Dean of the School of Education
B.A., Pennsylvania State University; M.A., University of Michigan;
Ed.D., Michigan State University
- JAMES W. HUGHES** Associate Professor of Education
B.S., State University College (Buffalo, N.Y.);
M.A., University of New Mexico; Ed.D., University of New Mexico
- BETTY L. HUTCHISON** Visiting Lecturer in Education
B.S., Wayne State University; M.A., Wayne State University
- PATRICK J. JOHNSON** Associate Professor of Education
Director of Student Teaching
Ph.B., University of Detroit; M.A., University of Detroit;
Ed.D., Wayne State University
- GEORGE R. JOHNSTONE** Assistant Professor of Education
B.A., Michigan State University; M.A., Michigan State University
- HOLLIE L. LEPLEY** Professor of Education
Director of Physical Education
M.S., University of Wisconsin;
Ph.B., Carroll College
- EDWARD M. LIDDLE** Assistant Professor of Education
B.A. Montclair State College; M.S., Purdue University;
Ph.D., Michigan State University
- JACQUELINE I. LOUGHEED** Associate Professor of Education
B.S., Wayne State University; M.S., Wayne State University;
Ed. Sp., Wayne State University; Ed.D., Wayne State University
- ETHEL M. McCULLOUGH** Special Instructor in Education
B.A., Wayne State University
- WILLIAM F. MOORHOUSE** Associate Professor of Education
B.A., University of Nebraska; M.Ed., University of Colorado;
Ed.D., University of Wyoming
- VIRGINIA B. MORRISON** Professor of Education
B.A., Michigan State University; M.A., University of Michigan;
Ph.D., University of Michigan

EDUCATION

- ROBERT G. PAYNE Associate Professor of Education
B.A., Western Michigan University; M.A., Michigan State University;
Ph.D., University of Michigan
- RODERIC E. RIGHTER Associate Professor of Education
Director of Special Projects
A.B., Ashland College; B.S., Ashland College;
M.Ed., Bowling Green State University; Ed.D., Wayne State University
- JAMES C. SCHMIDT Assistant Professor of Education
A.B., University of Michigan; M.Ed., Wayne State University;
Ph.D., Wayne State University
- VIRGINIA M. SCHULDENBERG Assistant Professor of Education
B.S., Mount Mary College; M.Ed., University of Missouri;
Ph.D., University of Missouri
- JOHN E. SCOVIL Assistant Professor of Education
B.A., Baldwin-Wallace College; Staff Assistant in Physical
M.S., University of Colorado Education
- DAVID G. SMITH Visiting Assistant Professor in Education
B.A., University of Akron; M.Ed., University of Vermont;
Ed.D., Indiana University
- DORIS M. SPONSELLER Visiting Lecturer in Education
B.S., Ohio State University; M.S., Michigan State University
- RONALD M. SWARTZ Assistant Professor of Education
B.A., University of Illinois; Ph.D., New York University
- SUSAN C. TENORIO Visiting Assistant Professor in Education
B.S., Eastern Michigan University; M.Ed., Wayne State University;
Ed. Sp., George Washington University
- COREY M. VAN FLEET, JR. Associate Professor of Education
B.S., Wayne State University; Assistant Director of Athletics
M.S., Wayne State University and Physical Education
Director of Aquatics
- CALVIN WILLIAMS, JR. Instructor in Education
B.A., Morehouse College; M.A., Eastern Michigan University
- KATHLEEN M. WILLIAMS Visiting Lecturer in Education
B.A., Central Michigan University; M.A., Michigan State University
- ORIAN WORDEN Associate Professor of Education
B.S., Illinois State University; M.S., Illinois State University;
Ph.D., Wayne State University
- JACQUELINE WUERTEBERG Visiting Lecturer in Education
B.S., S.E., Missouri; M.Ed., Oakland University

EDUCATION

COLLEGE OF ARTS AND SCIENCES

- DAVID C. BEARDSLEE** Professor of Psychology
Director, Office of Institutional Research
B.A., Swarthmore College; M.S., University of Michigan;
Ph.D., University of Michigan
- MELVIN CHERNO** Professor of History
B.A., Stanford University; M.A., University of Chicago;
Ph.D., Stanford University
- ROBERT L. DONALD** Instructor in English
B.A., Xavier University; M.A., University of Detroit
- PETER G. EVARTS** Associate Professor of English
B.A., Eastern Michigan University; M.A., University of Michigan;
Ph.D., Wayne State University
- GEORGE F. FEEMAN** Professor of Mathematics
B.S., Muhlenberg College; M.S., Lehigh University;
Ph.D., Lehigh University
- WILLIAM C. FORBES** Professor of Biological Sciences
A.B., Kent State University; M.A., Kent State University;
M.A., Columbia University; Ed.D., Columbia University;
Ph.D., University of Connecticut
- HAROLD GORVINE** Associate Professor of History
A.B., Tufts University; M.A., Harvard University;
Ph.D., Harvard University
- EDWARD J. HEUBEL** Professor of Political Science
B.A., Yale University; M.A., University of Minnesota;
Ph.D., University of Minnesota
- DONALD C. HILDUM** Professor of Psychology and Linguistics
A.B., Princeton University; M.A., Harvard University;
Ph.D., Harvard University
- DON R. IODICE** Associate Professor of French and Linguistics
B.A., Yale University; M.A.T., Yale University
- G. PHILIP JOHNSON** Professor of Mathematics
Dean of Graduate Study
B.S., University of Minnesota; M.A., University of Minnesota;
Ph.D., University of Minnesota
- CARMINE ROCCO LINSALATA** Professor of Spanish
B.A., Ohio State University; M.A., Ohio State University;
Ph.D., University of Texas

EDUCATION

- DAVID G. LOWY** Associate Professor of Psychology
Clinical Psychologist
B.A., Drake University; M.A., City College of New York;
Ph.D., University of Tennessee
- JACK R. MOELLER** Professor of German
B.A., Oberlin College; M.A., Princeton University;
Ph.D., Princeton University
- DONALD D. O'DOWD** Professor of Psychology
A.B., Dartmouth College; M.A., Harvard University; President
Ph.D., Harvard University
- RALPH J. SCHILLACE** Assistant Professor of Psychology
B.A., Fenn College; M.A., University of Cincinnati;
Ph.D., University of Cincinnati
- WILLIAM SCHWAB** Professor of Linguistics and English
B.A., Bethany College; M.A., University of Wisconsin;
Ph.D., University of Wisconsin
- W. PATRICK STRAUSS** Professor of History
A.B., Occidental College; M.A., Stanford University;
Faculté des Lettres, University of Paris; Ph.D., Columbia University
- S. BERNARD THOMAS** Associate Professor of History
B.S., City College of New York; M.A., Columbia University;
Ph.D., Columbia University
- IRVING TORGOFF** Associate Professor of Psychology
B.S., City College of New York; Ph.D., University of Rochester

THE UNDERGRADUATE PROGRAMS

Prospective elementary and secondary teachers may pursue a variety of programs and be sponsored for teaching certificates in the State of Michigan. Certification in this state usually suffices for, or facilitates the obtaining of, teaching certificates in other states. Concerning certification in Michigan and in other states, see pp. 318-319 of this catalog.

The aim of all teacher education programs at Oakland is to develop graduates who are both broadly educated and competently prepared for their specialized duties. Prospective teachers develop their majors and minors through liberal arts and science courses offered by the College of Arts and Sciences. The Department of Teacher Education offers professional education courses. Some of these courses include direct encounters with teaching in

EDUCATION

the public schools. For example, in their sophomore year, as part of an educational psychology course, prospective teachers observe various classroom situations in nearby schools and then discuss their observations in seminars on campus. Later, in their senior year, they have a ten-week internship during which they teach their subject under the supervision of a co-operating teacher and an Oakland faculty member.

All undergraduate teaching majors must take ED 244, 245, 455, and either ED 428 (secondary) or ED 433 (elementary).

SECONDARY TEACHING MAJORS

Prospective secondary school teachers may choose any one of thirteen teaching majors. The independent concentration offered by the College of Arts and Sciences is not included in this list. Consult the departmental entries in the College of Arts and Sciences for descriptions of secondary majors and minors.

Secondary teaching majors are available in the following subject areas:

Biology	(See p. 123.)	Mathematics	(See p. 185.)
Chemistry	(See p. 133.)	Music	(See p. 216.)
English	(See p. 156.)	Physics	(See p. 229.)
French	(See p. 198.)	Russian	(See p. 198.)
German	(See p. 198.)	Spanish	(See p. 198.)
Latin	(See p. 143.)	Social Studies	(See p. 278.)

SECONDARY TEACHING MINORS

Ten teaching minors are available to the prospective secondary school teacher. They are:

Art	(See p. 121.)	Modern Languages	(See p. 199.)
Biology	(See p. 123.)		
Chemistry	(See p. 134.)		
English	(See p. 157.)	Physics	(See p. 229.)
History	(See p. 165.)	Science	(See p. 283.)
Mathematics	(See p. 186.)	Social Studies	(See p. 279.)

ELEMENTARY EDUCATION PROGRAM

Prospective elementary school teachers must take a common core program and choose one area for major concentration and another

EDUCATION

for minor concentration. Students may concentrate in two major fields (instead of one major and one minor), but they may not select a single area for both major and minor concentrations. The core program and the concentrations complete all University requirements for graduation except that together they do not normally yield sufficient credits for the degree of Bachelor of Arts. To reach the minimum graduation requirement of 124 credits, students, in consultation with the elementary education advising office, must complete their programs with electives. The advising office is located in room 530 Varner Hall.

Core Program

Freshman Composition: Certificate of competence through examination or course work in learning skills — 0-8 credits.

2 semesters of Foreign Language or Linguistics 176, 177	8 credits
Psychology (UC 054 or PSY 146 or PSY 171)	4 credits
ART 147	5 credits
MUS 149	5 credits
MTH 314	4 credits
MTH 315 and MTH 316*	8 credits
SCI 305	4 credits
Area Studies	4 credits
Literature (UC 018, Eng. 105 or 111 or 140, or any course in foreign language numbered 271 or higher)	4 credits
Social Science (other than psychology)	4 credits
ED 244, 245	8 credits
ED 331	4 credits
ED 433 and ED 455	12 credits

*Students in the foreign language major concentration must elect the foreign language 114-115 sequence for 10 credits and are not required to take MTH 315 and MTH 316.

Major Concentration

HISTORY/SOCIAL SCIENCE

Psychology (UC 054 or PSY 146 or PSY 271)	} From the core program	4 credits
Area Studies		4 credits
Social Sciences		4 credits
HST 214, 215		8 credits
Additional courses in history, social science, geography, area studies		16 credits
Total		36 credits

EDUCATION

MODERN LANGUAGE

Foreign Language	From the core program	10 credits
Additional courses in same language offered in fulfillment of core requirement		26 credits
Total		36 credits

NOTE: Students who plan to combine a foreign language major concentration with a language arts minor should include LIN 176, 177, as a part of the minor sequence.

LANGUAGE ARTS

Foreign Language or LIN (Eng) 176, 177	} From the core program	8 credits
Literature		4 credits
Additional courses in English, speech, foreign language*		24 credits
Total		36 credits

NOTE: ED 332 can be used as part of this concentration.

*Students who elect a foreign language to satisfy the language requirement must include ENG 176 or 177 as part of this concentration.

SCIENCE/MATHEMATICS

MTH 314, 315, 316	} From the core program	12 credits
SCI 305		4 credits
Additional courses in science and mathematics approved by the Committee on Science and Mathematics		20 credits
Total		36 credits

Minor Concentration

HISTORY/SOCIAL SCIENCE

Psychology (UC 054 or PSY 146 or PSY 171)	} From the core program	4 credits
Area Studies		4 credits
Social Sciences		4 credits
HST 214, 215		8 credits
Additional courses in history, social science, geography, area studies		4 credits
Total		24 credits

EDUCATION

LANGUAGE ARTS

Foreign Language or LIN (Eng) 176, 177	} From the core program	8 credits
Literature		4 credits
Additional courses in English, speech and foreign language*		12 credits
Total		24 credits

NOTE: ED 332 can be used as part of this concentration.

*Students who elect a foreign language to satisfy the language requirement must include ENG 176 or 177 as part of this concentration.

SCIENCE/MATHEMATICS

MTH 314, 315, 316	} From the core program	12 credits
SCI 305		4 credits
Additional courses in science and/or mathematics		8 credits
Total		24 credits

NOTE: Exploratories may be used as electives.

A Senior Colloquium in the area of a major or a minor concentration may be used as part of this major or minor.

SPONSORSHIP FOR MICHIGAN TEACHER CERTIFICATION

The State Department of Education certifies teachers in Michigan. It issues provisional certification to candidates deemed qualified by colleges and universities. This Provisional Certificate can be converted to a Permanent Certificate after a period of teaching and additional studies. Oakland University sponsors its graduates for the Provisional Elementary and the Provisional Secondary Certificates if the following requirements are met:

1. Completion of the University baccalaureate with a teaching major and one appropriate minor.
2. An internship (ED 455) grade of 2.5 or better.
3. Demonstrated proficiency in the use of English. The criteria of acceptability may be ascertained by consulting the School of Education Office. Students should satisfy this requirement before the senior year to allow time to remove deficiencies.

NOTE: Students who expect to teach in a state other than Michigan should ascertain what requirements beyond those of Michigan that

state demands. It is the responsibility of the student to plan his or her program accordingly.

THE GRADUATE PROGRAMS

The School of Education and the College of Arts and Sciences jointly offer programs leading to the degrees of Master of Arts in Teaching in English and Master of Arts in Teaching in mathematics. In addition, the School of Education offers programs leading to the degree of Master of Arts in Teaching in the areas of elementary education and of reading and the degree of Master of Arts in Teaching in special education (for emotionally disturbed children). For details on these graduate programs consult the *Graduate Bulletin*.

CERTIFICATION PROGRAMS FOR GRADUATES

For graduates of accredited institutions who wish to be certified as teachers, Oakland University makes available programs in all majors offered by the University. Those seeking sponsorship for certification must be admitted through the Office of Graduate Study and must then apply to the School of Education for preparation of a certification program. This program will be prepared in consultation with the departments concerned and must be approved by them as well as by the School of Education. Application for admission should be made early enough in the semester prior to the one in which the student intends to enroll so that the various departments as well as the School of Education have ample opportunity to evaluate transcripts and advise students of courses which they will be required to take. Successful completion of such a program leads to sponsorship by Oakland University for the appropriate Michigan Provisional Certificate.

COURSE OFFERINGS

ED 244 Social and Philosophical Issues in Education (4 credits)

Education is viewed in broad perspective, as both an interpersonal activity and a social institution. An attempt is made to deal with the often implicit assumptions that underlie policy and action decisions. Among questions pursued are those about the social meaning of the schooling process, the open and closed classroom, the role of the teacher, the necessity or relevance of various curricula, the politics of education, historical traditions, contemporary critiques, and the ultimate and immediate aims of education.

Prerequisites: Sophomore Standing (32 hrs.)

EDUCATION

ED 245 Psychological and Field Studies in Education (4 credits)

Psychological factors involved in learning and development are examined in lectures, class discussions, and observations of teaching. These observations may be of actual teaching in the schools, or they may be observations of video tapes of teaching. Identical with PSY 245.

Prerequisites: Sophomore Standing (32 hrs.) and 1 course in Psychology

ED 321 The Teacher and the Atypical Child (4 credits)

The identification and management of atypical children in a regular elementary classroom setting. The course will deal particularly with those children requiring special management techniques and some modification of curriculum. These children may be hyper-active or withdrawn; they may have emotional, perceptual, or learning problems; or they may be gifted. Sections on parental assistance in handling atypical children and on school and community services available for diagnosis and referral will be included.

Prerequisites: ED 244 and ED 245.

ED 322 Introduction to Early Childhood 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 class, 2 hours lab per week.

Prerequisites: 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.

Prerequisites: ED 244, 245 or permission of Instructor. (Same as ED 586).

ED 331 Teaching and Reading (4 credits)

Intensive preparation for the teaching of reading skills in the elementary grades. Identification of reading readiness, problems of program construction, and a variety of teaching methods are among the topics of the course.

Prerequisites: ED 244 and ED 245.

ED 332 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.

Prerequisites: ED 244, ED 245 and completion of the general education Distribution Requirements in literature.

ED 333 Teaching the Language Arts (4 credits)

Preparation for the teaching of language arts in the elementary, middle, and early secondary schools. Teaching of composition, creative writing, oral language develop-

EDUCATION

ment, listening, spelling, reading, and the application of linguistic principles to reading and writing are among the topics covered in this course.

Prerequisite: ED 245.

ED 338 Teaching Reading in the Content Areas (4 credits)

A basic course in reading for students planning to teach in secondary school. Course content will deal with the nature of the reading process and methods and materials for teaching the reading of English, social studies, and other subjects to junior and senior high school students. (Not open to elementary education majors.)

ED 361 Techniques of the Helping Interview (2, 4 credits)

Emphasizes listening and observation skills, establishing mutual trust and acceptance, and providing support in a one-to-one relationship to help persons in decision making and to find success in personal endeavors such as education or employment. Students will learn to recognize applicant's needs for additional supportive services. Includes an introduction to the philosophy, theory, and research of the helping relationship. Techniques of instruction include role-playing, simulation, interaction analysis and experience with actual clients.

Prerequisite: Permission of Instructor.

ED 362 Assessment of Youth and Adults (2, 4 credits)

Concerns an overview of techniques used in the assessment of youth and adults for purposes of deciding upon and implementing educational, occupational, and personal-social strategies. Students will be introduced to measurement terminology as well as techniques of test administration and interpretation. Tools for assessing aptitudes, interest, abilities and attitudes will be studied. Emphasis will be placed upon the synthesis of data in the form of case studies and in case conferences.

Prerequisite: Permission of Instructor.

ED 363 Dynamics of Human Relationships in Education and Work Settings (2, 4 credits)

Deals with inter-personal relationships among students and teachers, employees and supervisors, and peers, in various settings such as: schools, adult training classes, government offices, and in groups or teams of co-workers. Introduces sociological and psychological theories of dynamics of human group behavior which can be applied personally by students in their work relationships. Emphasizes techniques of teaching these concepts to persons who they are helping to continue their education and to seek, to obtain, and to keep a job.

Prerequisite: Permission of Instructor.

ED 364 Guidance Information and Community Resources (2, 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 will gather first hand information from site visitations as well as through audio visual and printed media.

Prerequisite: Permission of Instructor.

ED 365 Introduction to Student Personnel Services (2, 4, 6, or 8 credits)

Includes basic principles and practices, evaluation and organization of college student personnel services for persons who are currently engaged in some phase of student personnel work or who plan to enter this work in the near future.

Prerequisite: Permission of Instructor.

EDUCATION

ED 366 Techniques of Human Resources Development (2, 4, 6, or 8 credits)

This course is intended to prepare individuals for work in public service in the emerging field of human resources development. Emphasis is placed upon cooperation among school teachers, counselors, parents, and community agency personnel (including employability development teams) to assist disadvantaged youth and adults from urban and rural areas and various cultural backgrounds to discover and develop their fullest potential and social usefulness.

Prerequisite: Permission of Instructor.

ED 367 Employability Development Procedures (4 credits)

Procedures of assisting persons to make a transition from education or unemployment to work. Development of skills to seek, obtain, and hold a job. Guidance practices to provide support and serve as an advocate for unemployed and disadvantaged persons. Introduction to job development procedures and service as a member of an employability development team.

Prerequisite: Permission of Instructor.

ED 368 Work and Training Development (2, 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. Stresses techniques of: appraising the needs of employers for persons with certain skills; writing work and training development contracts; and trainee follow-up and support.

Prerequisite: Permission of Instructor.

ED 369 Field Experiences in Guidance (2, 4, 6, or 8 credits)

Provides supervised experiences in a variety of helping relationships in work settings such as schools, employment offices, social services agencies, and in industry. Includes an orientation to various local community cultural settings and life styles. Experiences emphasize the process helping young people and adults adjust to education or work experience.

Prerequisite: Permission of Instructor.

ED 428 Teaching of the Major Field (4 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.

Prerequisites: ED 244, ED 245, and major standing. Must be taken concurrently with ED 455 except when other provisions have been made by the major department.

ED 430 The Public School in Urban America (4 credits)

The course deals with the role of schools in contemporary urban America, with special emphasis on the relationship between the school and the urban ethos, social stratification, racial identities, and the functioning of the school in the urban ecology. In addition, discussions will include considerations of curriculum, organization, financing, and the legal status of education.

Prerequisites: ED 244, ED 245, and major standing.

ED 433 Teaching in the Elementary School (4 credits)

Content and methodology of instruction in the elementary school. Includes extensive field observation in schools. This course is designed to supplement specialized courses in the teaching fields.

Prerequisites: ED 244, ED 245, SCI 305, ED 331, MTH 314, and major standing. Must be taken concurrently with ED 455.

EDUCATION

ED 455 Internship (8 credits)

Supervised teaching in the public schools. Students spend approximately fifty days in public school classrooms and participate in such further activities as a supervising teacher may direct. The course includes a seminar dealing with problems of instruction.

Prerequisites: ED 244, ED 245, major standing, concurrent registration in ED 428 (when appropriate) or ED 433, and permission of both the student's major department and the School of Education. A student must perform his or her internship in his or her last or next to last semester (a last semester is one in which a student needs to complete no more than 16 credits to satisfy all graduation requirements). A student must sign up for his or her internship one semester in advance. Internship applications for the Fall Semester must be filed prior to February 1, and applications for the Winter Semester must be filed prior to September 15. The semester prior to the internship, a student must attend an orientation interview. Students may sign up for interviews at the registration line or at the Student Teaching Office. Except for ED 428 or ED 433, a student may not take any other course work concurrently with ED 455.

ED 460 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 inter-personal relationships. Experience in such a group setting is provided as a major requirement of the course. Students are given an introduction to techniques they may use to provide support and help for others in a group situation.

Prerequisites: ED 363 and permission of Instructor.

ED 464 Teaching in Manpower Education Programs (2, 4, 6, or 8 credits)

Emphasizes the principles and basic teaching skills required in Manpower Education Programs. The student will develop skills in stating instructional objectives, planning activities appropriate for the attainment of the objectives and techniques of evaluating instructional outcomes. The importance of developing a sensitivity to the feelings, ideas and reactions of the students will be stressed. Experiences in the teaching process will be provided through simulation and internships in programs such as General Education Development classes and Manpower Orientation classes.

Prerequisites: ED 362, 363, and 364 or permission of Instructor.

ED 490 Independent Study and Research (2 or 4 credits)

A program of directed individual reading and research.

Prerequisite: Permission of the Department of Teacher Education. Such permission will be granted only if a student presents written evidence that a faculty member has consented to supervise his or her study.

ED 497 Apprentice College Teaching (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.

EDUCATION

The apprentice should be capable of assuming limited classroom teaching duties. Prerequisite: Permission of the Department of Teacher Education. Such permission will be granted only if a student presents written evidence that a faculty member has accepted him or her as an apprentice.

GRADUATE COURSE OFFERINGS

ED 500 Foundations of Reading Instruction (4 credits)

A basic course in the teaching of reading. Reading as a psycholinguistic process is examined. Assumptions which make varying approaches to reading about the learner and about the learning to read process are analyzed. Strategies in word recognition and comprehension are examined and applied. In addition the students in this course will be introduced to significant reading research and how to read and interpret current research.

The course is a combination of lecture, demonstrations, discussion, and application of techniques in teaching reading via role playing techniques. Required of all students in the MAT Reading Program.

ED 501 Introduction to the Education of Exceptional Children (4 credits)

This course introduces students to the field of Special Education. Organization of special education programs, types of exceptionalities, growth and development of exceptional children, and community resources are among the topics covered.

Prerequisite: Graduate standing.

ED 502 Skills and Competencies for Teachers of Exceptional Children (4 credits)

This course covers a core of competencies and skills deemed desirable for all teachers of exceptional children. These include identification of basic learning processes; understanding sensory, motor and perceptual processes; evaluation of personality and intellectual deviation, effective classroom management techniques, and use of equipment and materials.

Prerequisites: ED 501 or permission of instructor.

ED 509 The School and the Disadvantaged Child (2 or 4 credits)

A study of the difficulties and opportunities arising in the schooling of children from disadvantaged home environments. The course will concern itself with such topics as: clashes between values in school and home environments, communication across subcultural barriers, problems of motivation, etc.

Prerequisite: Permission of Instructor.

ED 511 Interaction Analysis (4 credits)

The course seeks to improve effectiveness of instruction through a study of pupil-teacher interaction. Techniques of observation, methods of gathering data and analyzing behavior in both the affective and the cognitive fields are emphasized. Techniques will include video tapings of teachers and pupils, projects including observational schedules, and preparation and analysis of specific teaching situations.

Prerequisites: Admission to a graduate program or permission of Instructor.

ED 512 Curriculum Development in the Public School (4 credits)

This course is designed for both elementary and secondary school educators interested in the basic elements, processes and concerns which one should consider when contemplating the development of a new curriculum. This course shall consider such fundamental concerns as, the child, the changing demands of society, the educational fields, and the nature of the subject matter, as critical ingredients in curriculum development. Ways of planning and organizing new curriculum with consideration for appropriate curriculum designs shall also be a major part of the course. Possible strategies and teacher responsibilities for bringing about change shall be included in the final parts of this course.

ED 513 The Organization of the Elementary School (4 credits)

This course is designed for people interested in the organizational nature of the elementary school. The course shall examine (1) the changes that have occurred historically in the elementary school organization with consideration for the causes of such change, (2) the changing nature of the present day elementary school in light of new curricular advances, and (3) possible future changes which might occur in the organizational structure as suggested by trends in elementary school curriculum. Primary focus shall be upon the teacher's role as a guiding agent of change within the educational environment.

ED 522 Behavior Modification Techniques for Classroom Management (4 credits)

This course will introduce teachers to the principles and application of behavior modification techniques. It will include specific methods for changing children's behavior in the classroom with emphasis on the child displaying learning or conduct problems. Prerequisites: Bachelor's degree and current teaching experience.

ED 523 Educational Procedures for Children with Learning Disabilities (4 credits)

This course will offer brief, concise, and objective reviews of various theories of learning disabilities and describe the major remedial methods advocated. Among the educational procedures to be discussed will be perceptual-motor, developmental, neuro-physiological, and linguistic approaches to education of children.

Prerequisite: One year's teaching experience.

ED 524 Perception in the School Setting (4 credits)

The course will deal with the process of perception, its relationship to learning and its application in the classroom. Diagnosis and remediation of perceptual problems in the classroom. Classroom programming emphasizing the theories of Piaget, Gesell Institute, and others.

Prerequisite: Graduate standing.

ED 527 Problems in Educating Mentally Handicapped Children (4 credits)

This course will review research, describe causes, explore school programs for mentally handicapped children. Methods of teaching mentally handicapped children and use of classroom materials will also be covered.

Prerequisite: Graduate standing.

EDUCATION

ED 530 Advanced Topics in Literature (4 credits) **for Children**

Recent literature for children will be critically analyzed as part of the literary mainstream. In-depth study of major authors and illustrators, genres, historical periods, and controversial issues will be encouraged. Emphasis will be placed on broadening the student's specific knowledge and appreciation of children's literature and on discovering personally effective ways of helping children to more fully understand and enjoy a variety of literary forms.

ED 531 Current Trends in the Teaching of Reading (4 credits)

An intensive examination of current instructional practices, problems, and research in the teaching of reading. Prevailing trends in reading instruction will be evaluated in the light of cumulative research findings concerning the development of reading skills.

ED 532 Teaching Reading in the Primary Grades (4 credits)

This course is designed to examine principles, practices, and research related to early reading instruction. It will include an analysis of the relationship of the various language arts to reading skills and will place emphasis upon the developmental skills of pupils, starting with kindergarten.

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

This course is designed to examine the principles, practices, and research related to the teaching of reading in grade four and higher grades. Emphasis will be placed upon the developmental reading skills in a reading program adjusted to the individual needs of pupils. Particular emphasis will be placed upon reading in the content areas.

ED 534 Language Arts Instruction in the Elementary Schools (4 credits)

This course is designed to provide a scholarly examination of research findings, materials, and procedures for the development of spelling, composition, speaking, and listening skills in children. Discussions will center on those areas of the curriculum which directly influence language development. The course will demonstrate how the coordinated-language-arts approach and the use of literature appropriate to each age level can balance the growth of communication skills.

ED 536 Teaching Reading to the Special Child (4 credits)

A general discussion of the reading process as it relates to slow learners, emotionally disturbed, handicapped, and gifted children. A study of remedial instructional materials and techniques is included.

Prerequisite: ED 521 or permission of Instructor.

ED 537 Teaching-Learning Strategies for Reading (4 credits) **and Related Language Arts Instruction**

This course focuses on a student-centered language arts curriculum which is designed to make current linguistic insights and practices available to teachers at an operational level. Those teaching-learning strategies which are concerned with divergent, elaborative, critical and creative thinking necessary in all aspects of the language arts are of major concern. Participants are invited to experiment with materials and approaches to individual and small group instruction. Meetings are provided

EDUCATION

ED 561 Guidance and Counseling for Children (4 credits)

Covers principles, practices, and basic techniques of guidance and counseling which teachers may use in the classroom, and basic understanding of procedures used by qualified elementary and junior high school counselors and other pupil personnel workers. The purpose of the course is to provide teachers with a knowledge of approaches they may use to help children develop in areas such as: self-understanding and a positive self-concept, ability to adjust and work with others, productive learning experiences and achievement, interests and an awareness of opportunity, and attainment of self-direction.

Prerequisite: Permission of Instructor.

ED 562 Assessment of Children (4 credits)

Covers individual and group analysis techniques used in the assessment of children for curricular planning and instruction, including: the nature and range of human characteristics, appraisal methods for analysis of physical, mental, and social development; techniques for understanding children's special needs, values, self-concepts, attitudes, learning styles and environmental influences. Includes measurement, evaluation, synthesis of case data, and case conference methods.

Prerequisite: Permission of Instructor.

ED 563 Group Procedures in Guidance (4 credits)

Concerns a study of group processes and the role of the counselor in using group procedures in the educational setting with children, parents, teachers, and other significant adults. Includes the use of group guidance materials. Provides opportunities in actual or simulated situations for practice with small groups to help teachers become more skillful in working in their classes. Includes experience as a member of a personal growth group to increase self-awareness and awareness of others.

Prerequisite: Permission of Instructor.

ED 567 Workshop in Guidance and (2, 4, 6, or 8 credits) Personnel Services

This course provides an opportunity for teachers, counselors, and administrators, and other personnel to evaluate and develop various aspects of guidance and student personnel programs. The course is offered upon request from school systems or agency personnel for the purpose of providing in-service education for counselors and others from various work settings in personnel services.

Prerequisite: Permission of Instructor.

ED 570 Social Studies in the Elementary (4 credits) School

An intensive study of current trends, challenges, characteristics, and content of effective social studies programs, with emphasis on the relationships among discipline areas comprising the social studies. The course will stress application of these studies in urban area elementary schools.

Prerequisites: ED 245 and acceptance into a graduate or certification program or major standing in elementary education.

EDUCATION

ED 581 Teaching About Black Africa in the Public School (4 credits)

This course shall include (a) content of both contemporary and historical topics of Black Africa applicable to new social studies programs in elementary and secondary curricula, (b) material evaluation, selection and use of Black African topics appropriate for elementary and secondary use, and (c) organization and development of an instructional unit on Black Africa for elementary or secondary school use.

Prerequisites: Admission to graduate program or permission of instructor.

ED 582 Play Production for Secondary School Teachers (4 credits)

This course is designed to aid secondary school instructors in counting effective dramatic productions. All phases of dramatic production, technical, philosophical and economic will be examined. It will be the intent of the course to provide each instructor with a manual detailing specific skills required for implementation of each primary area of play production. This course will allow teachers to broaden the base of their potential teaching options in the field of dramatics.

Prerequisites: None.

ED 583 The Middle School (2, 4 credits)

This course will deal with all aspects of the emerging middle school including organizational patterns, curriculum, psychological factors, philosophical bases, and methodologies. An in-depth analysis of the relationship of this organizational pattern to contemporary educational, social and student needs will be made. A feature of the course will be the utilization of various staff members from the fields of philosophy, psychology and education to review the ramification of the middle school.

Prerequisite: ED 512.

ED 584 The Open Classroom (2, 4 credits)

This course is designed to provide an in-depth examination of the open classroom as a philosophic as well as practical reordering of the traditional elementary classroom. The course will provide an opportunity for teachers to study and evaluate the open classroom within the contexts of psychological, ecological, social and curricular foundations.

ED 585 The Law and Public Education (4 credits)

This course is an introduction to school law for the practicing classroom teacher. It deals primarily with laws relating to public schools and teachers in Michigan and the United States as such laws guide and monitor education. Landmark cases such as *Brown vs. Topeka* or *West Virginia vs. Barnette* will be studied, applied and interpreted by both a lawyer and a faculty member. The course offers teachers a unique opportunity to study a most crucial area in public education in a non-traditional team teaching setting.

Prerequisite: Permission of instructor.

ED 586 Education of the Spanish-Speaking in the United States (4 credits)

This course is intended to provide an opportunity for teachers and other educators to become familiar with the negative and positive aspects of Latino Education. Lectures, readings, and discussions will deal with background information about the Spanish-speaking in the U.S.; the problems that confront Latinos in the edu-

EDUCATION

cational system; and the effective and promising approaches to educating the Spanish-speaking.

Prerequisite: Admission to graduate program. (Same as ED 323).

ED 590 Special Problems in Education (2, 4, 6, or 8 credits)

A course dealing with specialized problems in various phases of education. Depending on the clientele and staff needs, the specific topics may differ from term to term. The course may be taken more than once, but for no more than a total of 8 credits. May be elected for independent study.

Prerequisite: Admission to course in any graduate program or permission of the Department.

ED 591 Ecology of the Classroom (4 credits)

The course deals with the ecological context for learning in classroom, school, and community. The primary task will be to describe, to analyze, and to make inferences about the structure of the ecological environment. These findings will then be related to pupil learning.

Prerequisite: Permission of the Instructor or acceptance into any graduate program.

ED 592 Research Techniques in Education (4 credits)

A study of research techniques in the behavioral sciences and education, methods of gathering evidence, elementary statistical concepts in education, research design, etc. Students preparing to start their terminal project will find the course especially helpful.

Prerequisite: Acceptance to candidacy in a master's program in education or permission of Instructor.

ED 601 History of Education (4 credits)

A study of the cultural forces (primarily in the West) as they shaped, and were shaped by, the education of the young. Characteristic patterns of educational institutions, changing conceptions of curricula, dominant social and philosophic ideas concerning education, and significant contributions by individual educators represent some of the professional topics which are discussed in their historical settings.

Prerequisite: Admission to course in any graduate program.

ED 602 Philosophy of Education (4 credits)

A study of philosophical inquiry in relation to education. Philosophic analysis of educational problems, educational conclusions by systematic philosophers, logical relationships between various philosophical and educational positions are among the topics considered.

Prerequisite: Admission to course in any graduate program.

ED 603 Comparative Education (4 credits)

An analysis of education and its relationship to social and economic change in various cultures. Lectures, readings, and discussions will deal primarily with existing educational systems originating in Western culture, such as those of Great Britain, U.S.S.R., Sierra Leone, Kenya, but the course will also include some study of selected utopian educational systems.

Prerequisite: Admission to course in any graduate program.

ED 604 Sociology of Education (4 credits)

A study of social and cultural forces and their impact on the organization and practices of schools. An investigation of social dynamics within the schools and the impact of schools on other institutions of society.

Prerequisite: Admission to course in any graduate program.

EDUCATION

ED 611 Problems in Elementary Education (4 or 8 credits)

A study of issues in the organization, curriculum, administration, and methodology of elementary schools. Student needs and preparation determine the specific topics included in a given semester. Students may register for this course once or twice, up to a total of 8 credits.

Prerequisite: Admission to course in a graduate program in elementary education or in reading instruction.

ED 612 Curriculum Studies (4 credits)

A study of practices in and research on curriculum in modern elementary schools. The course will investigate the sum total of experiences provided for young people in school settings and will challenge established practices on the basis of recent curricular developments.

Prerequisite: Admission to course in a graduate program in elementary education or in reading instruction.

ED 620 Social Deviancy in Special and Regular Education (4 credits)

This course will critically analyze social deviance from an individual, institutional and societal perspective. The major focus will be in assisting the regular and special teacher in the prevention, correction, and management of social deviancy in the school setting.

Prerequisite: Admission to graduate program in Special Education or permission of Instructor.

ED 621 Management and Curriculum for Emotionally Disturbed Children (4 credits)

A study of the diagnosis and treatment, curriculum development, methods and material, and classroom procedures in programs for emotionally disturbed children in educational and clinical settings. The use of video tapes, role play, demonstrations, as well as direct observation of emotionally disturbed children will be included.

Prerequisites: ED 521 and one graduate course in psychology.

ED 622 Practicum in Special Education (6 credits)

A specialized field experience in a special education setting. Observation, tutoring, diagnostic and prescriptive teaching, and use of materials and equipment are part of the experience. ED 623 must be taken concurrently.

Prerequisite: Completion of all other requirements for the Master of Arts in Teaching in Special Education, or permission of Instructor.

ED 623 Seminar in Special Education (2 credits)

An action research project completed in conjunction with the Practicum in Special Education. Field testing intervention techniques, designing new education models or evaluating special education instruments are examples of projects. Must be taken simultaneously with ED 622.

ED 624 Directed Teaching in Special Education (6 credits)

This is a supervised full-time teaching experience in classrooms corresponding to the student's concentration in special education. Those qualifying for exemption from the supervised teaching requirement in the certification code may not take this course.

Prerequisites: Acceptance to degree candidacy in a Master's program in special education and approval by the director of the special education program.

EDUCATION

ED 627 Physical and Social Competencies of Handicapped Children (4 credits)

The course will identify the physical and social competencies necessary for mentally handicapped children to become productive citizens. Work skills and vocational opportunities will also be explored.

Prerequisite: Admission to graduate program in special education or permission of Instructor.

ED 630 Seminar in Reading (4 credits)

The validity, reliability, results, and conclusions of research and other literature in selected areas of reading and language arts will be carefully analyzed. The course will be conducted in traditional seminar fashion. Since this course is a seminar, enrollment will be limited.

Prerequisites: Two courses in reading instruction or permission of Instructor.

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

A study of diagnostic, methodological, organizational, and administrative issues in reading programs. Student needs and preparation determine the specific topics included in a given semester. Students may register for this course once or twice up to a total of 8 credits.

ED 632 Diagnosis of Reading Disabilities (4 credits)

A laboratory course concerned with analysis and study of factors which contribute to or precipitate reading disabilities in elementary and/or secondary school pupils. The course includes selection and administration of both informal and standardized tests and also deals with the preparation and evaluation of case reports.

Prerequisites: ED 500 or equivalent or permission of Instructor.

ED 633 Correction of Reading Disabilities (4 credits)

A laboratory course designed to focus attention on methods, materials, and practices pertaining to the instruction of disabled readers. The course provides opportunities to plan, organize, and conduct remedial instruction for children under the supervision of the instructor.

Prerequisites: ED 632 must be taken in the semester immediately preceding enrollment in this course.

ED 634 Advanced Study of Classroom Strategies in an Integrated Language Arts Curriculum (4 credits)

The theory, research and practice concerned with instructional strategies in all areas of the curriculum which serve to promote the development of reading-language abilities will be studied. Particular attention will be given to a process curriculum and current linguistic concepts which make adequate provision for a range of language inducing and language producing options. Participants will be expected to prepare materials which will cause young learners to engage in experimenting, examining, organizing, systematizing, analyzing and evaluating the reading-language abilities they employ. Attention also will be given to a study of changes in the language behavior of young people for the purpose of evaluating linguistic maturation.

Prerequisite: ED 537 recommended but not required.

EDUCATION

ED 635 Organization of Reading Programs (4 credits)

This course is designed for Masters candidates in reading who plan to become reading specialists or reading consultants. Course topics include (1) conducting a needs assessment of the language arts curriculum (2) program planning in reading (3) guidelines for staff development (ongoing and long range inservice) (4) analyzing reading materials (5) defining the reading consultant's role (6) strategies for working with classroom teachers in their classroom. Course requires field work in a school, preferably where the graduate student is presently employed.

Prerequisites: ED 632, 633 or permission of Instructor.

ED 664 Consultation in Pupil Personnel Work (4 credits)

Deals with techniques of consultation used by school counselors to help teachers, parents, and administrators to help children. Emphasis is placed on providing support for teachers of regular classes to enhance learning and adjustment of children and in the effective utilization of various school pupil personnel specialists, persons in the community, and development of good relationships among the significant adults in the life of each child. The course includes involvement in this work in an actual school setting and the adjacent community.

Prerequisites: Permission of Instructor.

ED 665 Guidance Information and Career Development (4 credits)

Emphasizes the process of providing guidance information and of helping elementary and junior high school children develop self understanding in regard to their interests, abilities, and opportunities for education and work, as a basis for decision making. A field experience applying these concepts will be a course requirement. Covers vocational development theory, psychological and sociological aspects of career choice, and systematic approaches to provide educational, occupational, and personal-social information. Computer-assisted information systems, storage of pupil information, and educational data processing as an aid to pupil personnel service is studied.

Prerequisite: Admission to the program in guidance and counseling or permission of Instructor.

ED 666 Practicum in Guidance and Counseling (4 credits)

A culminating course in the guidance and counseling sequence in which the student studies and applies counseling theory and practice and develops his own counseling skill in individual and group counseling procedures. Students are supervised in various work settings such as schools, the counseling laboratory and community agencies. The age of counselees will be appropriate to the individual needs of each practicum student. Analysis of audio and/or video tapes of simulations and actual counseling sessions will be conducted individually with a supervisor as well as in small practicum groups. Registration for 8 credits permits a more extensive field experience.

Prerequisite: Admission to the program in guidance and counseling or permission of Instructor.

ED 699 Terminal Project (4 credits)

The planning and execution of a significant research or project in accordance with the advice of the student's guidance committee.

Prerequisites: Admission to degree candidacy in a graduate program in elementary education or reading instruction and written approval of the student's guidance committee. Students should request such approval from their advisers early in the

EDUCATION

Fall Semester for registration in the Winter Semester, and early in the Winter Semester for registration in the Spring and Summer Sessions or Fall Semester. During the preparation of the terminal project students must remain in constant touch with their advisers and must present the completed project no less than two weeks before the end of classes in the term of graduation.

RELATED COURSES

SCI 305 (Science in the Elementary School), SCI 505 (Basic Concepts and New Developments in Science), SS 570 (Social Studies in the Elementary School) and MTH 513 (Topics in Elementary School Mathematics) are four courses appropriate for many students preparing to teach. For course descriptions see pp. 284, 280 and 193 of this catalog.

HI 261 Fundamentals of Human Interaction (2 or 4 credits)

An introduction to individual and small group interaction. Consideration is given to interpersonal communication, group processes, group membership, group leadership, techniques of developing and maintaining and helping relationship, decision making, observation and listening skills, change processes, personal growth processes, and self awareness. The course assists students to develop awareness of their potential and provides preparation to operate more effectively in community service activities. Role playing, demonstrations, video recordings, simulations and other experiential activities constitute a major portion of the instructional program.

SCHOOL OF ENGINEERING

OFFICERS OF ADMINISTRATION

JOHN E. GIBSON Dean
KEITH R. KLECKNER Assistant Dean for Graduate Programs
HOWARD R. WITT Assistant Dean for Undergraduate Programs

OFFICERS OF INSTRUCTION

DONALD D. O'DOWD President
A.B., Dartmouth College; M.A., Harvard University;
Ph.D., Harvard University

FREDERICK W. OBEAR Provost
B.S., Lowell Technological Institute;
Ph.D., University of New Hampshire

DAVID E. BODDY Associate Professor of Engineering
B.S.M.E., Purdue University; M.S.E., Purdue University;
Ph.D., Purdue University

BENJAMIN F. CHEYDLEUR Professor of Engineering
B.A., University of Wisconsin

ROBERT H. EDGERTON Associate Professor of Engineering
B.S., University of Connecticut; M.S., University of Connecticut;
Ph.D., Cornell University

DAVID H. EVANS Professor of Engineering
B.S., Lehigh University; Ph.D., Brown University

DONALD R. FALKENBURG Assistant Professor of Engineering
B.M.E., Clarkson College of Technology;
M.S., Clarkson College of Technology;
Ph.D., Case Western Reserve University

JOHN E. GIBSON Dean
B.S., Rhode Island State College; Professor of Engineering
M.Eng., Yale University; Ph.D., Yale University

JOHN G. GIEVERS Adjunct Professor
Abitur, Liebigs Oberrealschule;
Diplom Ingenieur, M.S.E.E., Technical University Darmstadt
Doctor Ingenieur, Ph.D., Technical University Darmstadt

ENGINEERING

RATAN K. GOVILA Assistant Professor of Engineering
B.Sc., Agra University; B.S., Oregon State University;
M.S., Washington State University; Ph.D., University of Liverpool

WILLIAM G. HAMMERLE Professor of Engineering
B.S., California Institute of Technology; Ph.D., Princeton University

RICHARD E. HASKELL Professor of Engineering
B.E.E., Rensselaer Polytechnic Institute;
M.E.E., Rensselaer Polytechnic Institute;
Ph.D., Rensselaer Polytechnic Institute

ROBERT G. HEEREN Assistant Professor of Engineering
B.S.E.E., Purdue University; M.S., University of Illinois;
Ph.D., University of Illinois

JOHN CARROLL HILL Professor of Engineering
B.E.E., University of Louisville;
M.S.E.E., University of Southern California; Ph.D., Purdue University

ALBERT F. HOUCHEMS Assistant Professor of Engineering
B.S.M.E., Purdue University; M.S.M.E., University of Illinois;
Ph.D., University of Illinois

JOSEPH D. HOVANESIAN Professor of Engineering
B.S., Michigan State University; M.S., Michigan State University;
Ph.D., Michigan State University

GLENN A. JACKSON Assistant Professor of Engineering
A.A., Burlington College; B.S.E.E., University of Denver;
M.S.E.E., University of Denver; Ph.D., University of Michigan

KEITH R. KLECKNER Assistant Dean
Professor of Engineering
B.E.E., Cornell University; Ph.D., Cornell University

KENNETH A. MEADE Adjunct Professor of Engineering
Assistant to the Dean of Engineering
B.A., Eastern Michigan University; M.S., University of Michigan;
Sc.D. (Honorary), Eastern Michigan University

KEEVE M. SIEGEL Adjunct Professor of Engineering
B.S., Rensselaer Polytechnic Institute;
M.S., Rensselaer Polytechnic Institute

GILBERT L. WEDEKIND Associate Professor of Engineering
B.S.M.E., University of Illinois; M.S.M.E., University of Illinois;
Ph.D., University of Illinois

ENGINEERING

TUNG H. WENG Associate Professor of Engineering
B.S.E.E., National Taiwan University; M.S.E.E., University of Iowa;
Ph.D., University of Missouri

HOWARD R. WITT Assistant Dean
Professor of Engineering
B.A.Sc., University of Toronto; M.S.E., Princeton University;
Ph.D., Cornell University

MICHAEL J. WOZNY Associate Professor of Engineering
B.S.E.E., University of Arizona; M.S.E.E., University of Arizona;
Ph.D., University of Arizona

BOARD OF VISITORS

The Board of Visitors for the School of Engineering are among the leaders of industry in southeast Michigan. They assist the School of Engineering in educating students to meet the rapidly expanding requirements in the technical world. The Board is available as a body or individually for consultation and advice on such matters as curriculum, facilities, equipment requirements, special subjects, and long-range planning.

Members of the Board are:

- Mr. B. W. Bogan, Vice President of Engineering, (Ret.)
Chrysler Corporation
- Dr. Paul F. Chenea, Vice President Research Labs.,
General Motors Corporation
- Dr. Robert R. Johnson, Vice President of Engineering,
Burroughs Corporation
- Mr. H. L. Misch, Vice President, Engineering Staff,
Ford Motor Company
- Dr. E. N. Petrick, Chief Scientist/Technical Director of Laboratories,
U. S. Army Tank Automotive Command
- Mr. C. B. Sung, Vice President and Group Executive Advanced
Technology Group, The Bendix Corporation
- Mr. R. Jamison Williams, Director, Lear Siegler, Inc.,
- Mr. F. J. Winchell, Vice President of Engineering Staff,
General Motors Corporation

UNDERGRADUATE CURRICULUM IN ENGINEERING

The undergraduate engineering program at Oakland University is built on the broad intellectual base of the University's imaginative program in liberal arts and the sciences and is designed to provide a comprehensive academic preparation for students

ENGINEERING

planning to enter the engineering profession. It is intended especially for the relatively able student entering one of the newer fields of engineering and leads to the degree of Bachelor of Science. A growing number of students also find that an undergraduate education in engineering provides excellent preparation for careers such as business, law, and medicine.

The curriculum stresses the fundamentals of science and mathematics as well as of engineering. During the freshman and sophomore years in particular, each student majoring in engineering takes extensive work in mathematics and the physical sciences as a foundation for his or her professional studies. A series of engineering courses ranging from thermodynamics and electronics to the mechanics of solids completes the foundation. The content of the engineering courses in this core curriculum is essential to the preparation of professional engineers. The schedule is arranged so that a student takes at least one course in engineering each semester, starting in the freshman year. This early introduction to engineering provides career motivation and alleviates crowding of technical courses late in a student's program. The undergraduate program emphasizes the digital computer and electronic analog computer simulation. Students are introduced to digital computer FORTRAN programming in the freshman year and computers are used in each subsequent engineering course.

During his or her senior year, the engineering student specializes in a particular area of his or her own choice. Twelve hours of credit in 400 level courses are required. Regular advanced courses at the 400 level are available in such areas as electronics, control systems, computer science, coherent optics, materials, and thermal sciences. Additional courses on Special Topics (EGR 405) are offered for credit in a variety of other engineering fields. To prepare the student for independent project work in his or her senior year, the engineering laboratories taken in the first six semesters consist of open-ended experiments in which the student is encouraged to modify, redesign, and extend the assigned experiments. The student machine shop and the electronics shop may be used to construct apparatus not otherwise available, and the student may call upon an instrument maker and an electronics technician for aid in designing more complex pieces of equipment. The Senior Engineering Project (EGR 409) is an extension of this concept. In this course the student and his or her professor agree upon a design project, the schedule for its completion, the cost of materials and labor, and the number of credits to be earned by the student. This concept of individual responsibility tends to stimulate in the student

ENGINEERING

the maturity and self-reliance required of every successful engineer and provides opportunity for study in depth in a specialized area of interest.

The School of Engineering has pioneered an exciting involvement of undergraduates in research. A number of students from the freshman to the senior levels participate in the program and are paid for their efforts. The student research assistants make a definite contribution to the various research laboratories, and they derive increased maturity, responsibility, and technical competence as a result of their participation.

ACCREDITATION

The undergraduate engineering program of Oakland University has been fully accredited by the North Central Association of Colleges and Secondary Schools and by the Engineers' Council for Professional Development, which is the official accrediting agency for the engineering profession in the United States and Canada.

PREPARATION FOR ADMISSION

Entering Freshmen

Entering freshmen planning to major in engineering should present at least three years of high school mathematics, including one-half unit of trigonometry. Additional high school courses in mathematics, the laboratory sciences, and English are most desirable. Preparation in elementary drafting and machine shop practice is useful but not necessary.

Transfer Students

Courses in mathematics, English, and the physical sciences essential to the study of engineering are available in many liberal arts colleges and community junior colleges. Often these are offered as a part of a complete two-year program designed to meet the requirements for study of engineering at the professional level in other colleges and universities.

Students with any amount of college credit will be considered for transfer admission. However, since the engineering program at Oakland University is based on a strong foundation in mathematics and the physical sciences, a student planning to transfer into it should carefully consider the advantages of completing such basic pre-engineering programs before applying for transfer.

ENGINEERING

As many as possible of the following credits should be presented for transfer: analytic geometry and calculus including linear algebra and differential equations (four courses); introductory college physics covering mechanics, electricity and magnetism, wave motion and optics and using the calculus in its instruction (two courses); modern physics covering atomic and nuclear phenomena (one course); college chemistry including laboratory (one or two courses). Other credits presented in mathematics, science, or engineering will be evaluated with reference to the engineering courses required at Oakland University for graduation. Technician course credits are not generally applicable to these requirements. Students must have a grade of "C" or better in each course presented for transfer credit.

Students planning to transfer are encouraged to accumulate equivalents of certain general education requirements of the Oakland University engineering program outlined on p. 342, but not at the expense of the mathematics and physical science requirements outlined in the preceding paragraph.

See pp. 15-17 for other information regarding admission of transfer students.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE

A student with a major in engineering must meet the following requirements in order to graduate:

1. Have completed at least 128 credits.
2. Have completed 32 credits at Oakland University. At least 16 of these credits must be in engineering.
3. Have taken the last 8 credit hours needed to complete baccalaureate requirements in residence at Oakland University.
4. Have a cumulative grade point average in courses taken at Oakland University of at least 2.0.
5. Have demonstrated writing proficiency by meeting the university standard in English Composition.
6. Have completed the general education requirement specified by the School of Engineering (24 credits).
7. Have completed the engineering core program, which consists of EGR 101, 172, 215, 216, 225, 241, 326, 344, 345, and 361 (38 credits).

ENGINEERING

8. Have completed the science and mathematics core program consisting of CHM 104 (or CHM 114 or CHM 124); CIS 180; MTH 154, 155, 254, and 255; and PHY 151, 152 and 158 (34 credits).
9. Have completed the elective package which consists of:
 - (a) 24 credit hours of directed electives distributed over three groups:
 - Group I — At least 12 credit hours in 400 level courses chosen to meet career objectives and approved by the student's adviser.
 - Group II — At least 4 credit hours chosen from the approved list of courses in Life, Environmental and Social Sciences.
 - Group III — At least 4 credit hours chosen from the approved list of courses in Mathematics and Physical Sciences.The remaining 4 credit hours may be chosen from any of the three groups.
 - (b) 8 credit hours of free electives.
10. Have attained a cumulative grade point average of at least 2.0 in the engineering core courses and the 400 level elective courses.
11. Have completed an application for degree card at the Office of the Registrar.
12. Be in substantial compliance with all legal curricular requirements.

Proficiency Testing

The term "complete" as used above in stating the degree requirements means either to establish credit in a course by earning a passing grade in the course, by passing a competency examination or by receiving transfer credit from another institution. In certain circumstances a course requirement may be formally waived by a successful Petition of Exception to the Committee on Instruction and Appeals of the School of Engineering. Engineering students may obtain Petition of Exception forms from the office of the Dean of the School of Engineering.

Writing Proficiency

Students in engineering must demonstrate proficiency in writing by passing an essay test prepared and graded by the Department of Learning Skills. Freshmen will have an opportunity to take the test before commencing their first semester. If a student passes the test no further course work in English Composition will be

ENGINEERING

required. Students not achieving the proficiency standard will be counselled to take certain English Composition courses offered by the Department of Learning Skills prior to another attempt at the essay test.

Transfer students will be deemed to have met the writing proficiency standard upon presentation of two college level courses (at least 6 credits) in English Composition.

GENERAL EDUCATION

Oakland University requires all undergraduates in degree programs to share in a series of courses distributed so as to provide a broadening intellectual experience in liberal education.

To satisfy the general education requirement students with a major in engineering must:

1. Complete 24 credit hours in General Education courses. Up to eight hours in English Composition courses may be presented as part of the 24 credits in General Education.
2. Complete at least four credit hours in three of the four designated field groups, and at least eight credit hours in one of the field groups. The field groups are Arts, Letters, Social Science and Area Studies. Academic Units sponsoring the field groups are:

Arts

Art
Music
Theater

Letters

*Classics
English
History
Modern Languages and Literatures
Philosophy and Religion
(*Literature courses in translation or in the foreign language)

Social Sciences

Economics
Economics and Management
Political Science
Psychology
Sociology/Anthropology

Area Studies

Interdepartmental Committee on Area Studies
(African Studies, East Asian Studies,
South Asian Studies,
Latin American Studies,
Slavic Studies)

It is also possible for engineering students to meet the general education requirements by enrollment in Allport College, Charter

ENGINEERING

College, or New College. Engineering students taking one of these latter options, however, may find they need more than eight semesters in which to meet the requirements for the degree of Bachelor of Science.

DIRECTED ELECTIVES

The following courses are approved as directed electives for students in engineering:

Life, Environmental & Social Sciences

Biology courses numbered 111 and higher
ENV 181, 372
PSY 231, 261
SOC 255, 260
ECN 216, 217 and Economics courses numbered 300 and higher
MGT courses numbered 300 and higher

Mathematics & Physical Sciences

All Chemistry courses except: CHM 104, 114, 124 and 191.
MTH 226 and mathematics courses numbered 325 and higher
Physics courses numbered 317 and higher.

CAREER PREPARATION IN ENGINEERING

The engineering program at Oakland University is designed to allow the maximum possible latitude in the choice of industrial careers; it also prepares students who wish to enter outstanding graduate schools. Serving both these goals, the engineering core program and advanced electives combine to form an overall program at Oakland University that is equivalent in scope and depth to the typical requirements in specialized curricula in other fine schools of engineering. The School of Engineering at Oakland University, however, does not force a student to make a premature choice of career specialization. The student, in consultation with his or her adviser, selects a schedule of advanced elective courses in the area of his or her choice.

Career specialization in areas such as engineering management, bio-engineering and engineering chemistry normally requires advanced work in a department outside of engineering. The advanced elective package may be used outside of engineering to pursue such specializations *with the consent of the student's adviser*. The student should note, however, that he or she will probably have to use free electives to obtain the prerequisites for advanced work in these areas.

ENGINEERING

OPTIONS

Listed here for guidance are some of the typical options available to engineering students.

Computer Science

Computer science consists of the design and abstract modeling of information processing systems for application to modern problems. The design of computer systems includes the development of internal machine operating procedures and of new computer languages as well as design of the physical components. These three subjects are therefore generally referred to as computer architecture, software, and hardware, respectively.

The modern engineering program at Oakland University also places major emphasis on the use of the computer as a tool in solving a wide range of technological and scientific problems. Following the core program, the student interested in computer science should elect Applied Numerical Methods (CIS 480), Introduction to Information Structures (CIS 382), Hybrid Computation and Simulation (EGR 481), and Switching Theory (EGR 485).

The School of Engineering also offers a Concentration in Computer Science designed for interested students in the College of Arts and Sciences and the School of Economics and Management. Programs are jointly approved and administered by a Concentration committee and by the student's major department, and are composed of a minimum of 16 credits of course work in computer science with additional courses specified by the department of the student's major. More details about this program may be found under Concentration in Computer Science in the Interdepartmental Programs in the School of Engineering.

Electrical Engineering

The student preparing for specialization in electrical engineering should elect Signal and System Analysis (EGR 425) and Advanced Electronics (EGR 426) and should give consideration to further work in Communication Systems (EGR 427), Automatic Control Systems (EGR 431), or Electric and Magnetic Fields (EGR 445).

Systems Engineering

The systems engineer develops automatic controls for a wide variety of physical processes. To the core program the student in

this field should add Signal and System Analysis (EGR 425), Automatic Control Systems (EGR 431), Analysis of Nonlinear Systems (EGR 432), and The City as a System (EGR 405).

Fluid and Thermal Sciences

Engineers working in the fluid and thermal sciences area are concerned with the analysis and design of systems associated with the conversion and transport of mass, momentum, and energy. In addition to the core program, a student interested in this field of engineering should consider electing Thermal Energy Transport (EGR 448), Fluid Transport (EGR 449), Direct Energy Conversion (EGR 454), and Special Topics (EGR 405).

Mechanical Engineering

The student wishing to enter mechanical engineering should elect Thermal Energy Transport (EGR 448), Fluid Transport (EGR 449), Advanced Mechanics of Materials (EGR 461) as well as courses in systems or energy conversion, depending upon his or her particular interests.

Materials Engineering

To the materials courses in the core program, students in materials engineering should consider adding courses in Modern Physics and in chemistry. Advanced work in electronic properties of materials and mechanical properties of materials is available through Electronic Properties of Materials (EGR 472), Solid State Electronic Devices (EGR 473), and Mechanical Properties of Materials (EGR 462).

Coherent Optics

As preparation for a career in coherent optics the student should elect Signal and System Analysis (EGR 425), Electric and Magnetic Fields (EGR 445), and Coherent Optics (EGR 450).

Energetics

The student preparing for a career involving such applications as plasma engineering, magnetohydrodynamics, ion propulsion, and fuel cells should add to the core program Electric and Magnetic Fields (EGR 445) and Direct Energy Conversion (EGR 454).

ENGINEERING

Environmental Engineering

Specialization in environmental engineering may be achieved through environmental science electives, Special Topics (EGR 405), Senior Engineering Project (EGR 409) and through cooperation with the Departments of Biological Sciences and Chemistry.

Engineering Management

Engineering students interested in technical sales and technical management will wish to add electives from the School of Economics and Management. Prerequisite courses include Microeconomic Analysis (ECN 216), Macroeconomic Analysis (ECN 217), and Management Information and Control Systems I (MGT 200). Advanced electives may be drawn from Management Strategies and Policies (MGT 435), Operations Research (MGT 442), and Advanced Economic Theory (ECN 417).

Bio-Engineering

Biological engineering is one of the rapidly developing frontiers of engineering. To pursue the bio-engineering option students should take Physiology (BIO 221) or Histology (BIO 223), and Elementary Biophysics and Cellular Biochemistry (BIO 225, 226) as preparation. Advanced work may be taken through Special Topics (EGR 405) and in cooperation with the Department of Biological Sciences.

Engineering Chemistry

Options in physical chemistry, biochemistry, and environmental chemistry are available to students interested in an engineering chemistry specialization. Since the options do not all have the same prerequisites interested students are urged to consult their advisers early in their program to plan their electives.

Other Fields

Many fields of student interest such as nuclear engineering, for example, are primarily areas of graduate specialization. The program at Oakland University gives excellent preparation for these fields. Some areas of undergraduate specialization such as mining engineering and textile engineering are not offered at Oakland University. The prospective student should consult the Assistant Dean of Engineering for Undergraduate Programs on the availability of preparation for any particular field of interest.

INTERDEPARTMENTAL PROGRAMS

Students in engineering who wish to add an established concentration or otherwise participate in an interdepartmental program offered outside of the School of Engineering must apply to the chairman of the appropriate concentration committee or of the department involved. See Offices of Interdepartmental Programs p. 68.

Premedical Concentration

Engineering students planning a career in the medical or dental profession should complete the concentration in premedical studies. This concentration is offered through the College of Arts and Sciences, and its detailed requirements are given on p. 276.

It is intended to satisfy the minimum requirements for admission to the various medical and dental schools in Michigan and elsewhere. By careful selection of elective courses students may complete requirements for the premedical concentration while also satisfying the requirements for the degree in engineering. The premedical concentration may be completed by taking the courses beyond the science and mathematics courses specified for the core program in engineering as follows:

- a) Biology: 2 courses (10 credits), including laboratories.
- b) Chemistry: 3 courses (15 credits), including laboratories.

By proper selection of these courses in consultation with his or her adviser the student may fulfill advanced elective requirements in the engineering program while also meeting the requirements of the premedical concentration.

Concentration In Computer and Information Science

The Concentration in Computer Science is offered by the School of Engineering and is available on a joint basis to students within a department of the College of Arts and Sciences or the School of Economics and Management as well as to students in the School of Engineering. Many such combinations are feasible. With a major in mathematics, physics, chemistry, biology or economics, a student may wish to emphasize numerical and scientific computing aspects of computer science. With a major in English, modern languages, history, philosophy, psychology, sociology, or anthropology, a student may wish to take courses in the computer science concentration that emphasize non-numerical and symbolic data processing, language translation, and list processing. With a major in

ENGINEERING

economics and management, a student may wish to take courses oriented toward application of computers in management data processing.

To participate in the Concentration on Computer Science the student must have completed 32 credit hours, including at least one CIS course, and must have obtained the approval of an authorized adviser for the Concentration. The student should apply to the Committee for the concentration in Computer and Information Science by completing the application forms available in Room 248 Dodge Hall. The student's program will then be developed by joint action of the student, the departmental adviser and the Committee.

A minimum of 16 credits in approved courses (including at least 8 credits in CIS courses) is required in the concentration, with the possibility of additional work being required in some instances.

The course offerings in Computer and Information Science are listed on p. 354 of this catalog.

PLAN OF STUDY

To assure orderly progress towards satisfying degree requirements each engineering student who has earned more than 56 credits is encouraged to fill out a Plan of Study. The Plan of Study form is a timetable of courses to be taken for undergraduate credit. It is usually submitted during the semester in which he or she completes 56 credits. Transfer students should submit a Plan of Study at the time they enter Oakland, regardless of the number of credits earned. The forms are completed by the student in consultation with his or her adviser, and they are then approved by the Dean's Office. Acceptance of the Plan of Study indicates approval by the School of the student's program. In rare cases students who failed to seek advisers concurrence of their program or fill out a Plan of Study have encountered difficulties in completing the degree requirements on schedule.

TYPICAL ENGINEERING PROGRAM

Semester 1

English Composition or
Distribution Requirement
EGR 101
MTH 154 or 134
CHM 104, 114, or 124

Semester 2

English Composition or
Distribution Requirement
EGR 172
MTH 155 or 154
CIS 180

ENGINEERING

Semester 3

Distribution Requirement
EGR 215
MTH 254
PHY 151

Semester 5

Distribution Requirement
EGR 225
EGR 241
EGR 361

Semester 7

Group 1 Elective*
Group 1 Elective*
Directed Elective**
Free Elective***

Semester 4

Distribution Requirement
EGR 216 (2 credits)
MTH 255
PHY 152
PHY 158 (2 credits)

Semester 6

Distribution Requirement
EGR 326
EGR 344
EGR 345

Semester 8

Group 1 Elective*
Directed Elective**
Directed Elective**
Free Elective***

*Group 1—400 level courses

Group 2—Environmental, Life and Social Science

Group 3—Mathematics and the Physical Sciences

**Directed Elective—at least one from Group 2, one from Group 3 and the third from Groups 1, 2 or 3. Non-Science and Mathematics Electives in Group 2 may be used to satisfy Distribution Requirements.

***Free Electives—may be chosen from Groups 1, 2 or 3 or from any other credit courses offered by the University.

REGULATIONS GOVERNING COURSES

1. A course sequence joined by a hyphen (e.g., MTH 154-155) must be taken in the order indicated. The first course in such a sequence is regarded as a prerequisite to that following. A department or school has, however, the right to waive these and any other prerequisite course requirements.

2. Course numbers separated by commas (e.g., HST 214, 215) indicate related courses, which may be taken in any order. Departmental or program requirements may govern the order in certain cases, however.

3. University Courses and courses numbered 100 to 299 are introductory or intermediate undergraduate courses. Courses numbered 300 to 499 are advanced courses primarily for undergraduates.

ENGINEERING

Courses numbered 500 and above are primarily for graduate students.

4. The Registrar reserves the right to cancel any course in which there is insufficient registration.

UNDERGRADUATE COURSE OFFERINGS IN ENGINEERING

EGR 005 Pre-engineering Topics (4 credits)

Graphical data reduction, statistics, economics, energy, and thermodynamics as well as human factors and information concepts are applied to the solution of engineering design problems. Offered in the Fall Semester and Summer Session.

EGR 101 Introduction to 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 Semester.

EGR 108 Drawing (2 credits)

Introduction to the use of drafting instruments and drafting procedures. Geometric construction, geometric projection, dimensioning, tolerancing and graphical symbols. Offered in the Winter Semester.

Prerequisite: Consent of the Instructor.

EGR 111 Shop Practice (2 credits)

Introduction to basic machining principles and machine shop techniques, use of lathes, milling machines and other power machines. Emphasis is on practical experience. Offered in the Fall Semester.

Prerequisite: Consent of the Instructor.

EGR 172 Properties of Materials (Core) (4 credits)

The atomic, molecular, and crystalline structure of solids, including a description of x-ray analysis, metallography, and other methods for determining structure; correlation of structure with the electric, magnetic, and mechanical properties of solids. Offered in the Fall and Winter Semesters.

EGR 205 Engineering Topics (4 credits)

Introductory and intermediate study in special areas. May be taken more than once. Offered in the Fall and Winter Semesters.

EGR 209 Engineering Project (2 or 4 credits)

Introductory work on laboratory projects; topics to be chosen by the student in consultation with an instructor. May be taken more than once. Offered in the Fall and Winter Semesters and in the Spring and Summer Sessions.

EGR 215 Statics and Dynamics (Core) (4 credits)

A vector treatment of mechanics which includes particle statics, equilibrium of rigid bodies, analysis of elements, kinematics, and kinetics of particles and rigid bodies, applications of dynamics to machine elements, analytic solutions of dynamical systems. Offered in the Fall and Winter Semesters.

Prerequisites or corequisites: MTH 154 and PHY 151.

ENGINEERING

- **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 215, PHY 152, and MTH 155.
- **EGR 241 Thermodynamics (Core) (4 credits)**
Introduction to fundamental concepts, thermal energy, thermodynamic properties and equilibrium, basic physical laws of thermodynamics; entropy and its consequences, reversible energy transfers in both open and closed systems; application of thermodynamics to systems involving energy conversion and transport. Offered in the Fall and Winter Semesters.
Prerequisites: CHM 104, 114 or 124.
Prerequisite or corequisite: MTH 254.
- **EGR 326 Electronic Circuit Design (Core) (4 credits)**
Analysis and design of solid-state electronic circuits. Non-linear dissipative characteristics, large-signal analysis of amplifiers, small-signal analysis of active two ports, voltage amplification, transducers, feedback. Offered in the Fall and Winter Semesters.
Prerequisite: EGR 225.
Prerequisite or corequisite: MTH 254.
- **EGR 344 Fields and Waves (Core) (4 credits)**
Introduction to distributed parameter systems and wave phenomena, transmission lines, scalar and vector waves, interference and diffraction, Fourier analysis, introduction to the electromagnetic field. Offered in the Fall and Winter Semesters.
Prerequisite: EGR 225.
- **EGR 345 Introduction to Fluid and Thermal Energy Transport (Core) (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.

ENGINEERING

- **EGR 400 Engineering Seminar (1 credit)**
Lectures and discussions conducted by members of the faculty, graduate students, and invited speakers from industry and other universities. Various topics will be covered, but emphasis will be on current research interests of the School. May be taken for a maximum of 2 credit hours. Offered in the Fall and Winter Semesters.
- **EGR 405 Special Topics (4 credits)**
Advanced study in special areas. May be taken more than once.
Some topics offered recently have included:
- | | |
|---|-----------------------------------|
| 1. Environmental Engineering | 4. Materials |
| 2. Engineering Probability and Statistics | 5. Computer Architecture |
| 3. The City as a System | 6. Bio-Systems Engineering |
| | 7. Modeling of Ecological Systems |
- Variouly offered in the Fall and Winter Semesters.
- **EGR 409 Senior Engineering Project (2, 4, 6, or 8 credits)**
Independent work on advanced laboratory projects; topics to be chosen by the student in consultation with an instructor. May be taken more than once. Offered in the Fall and Winter Semesters and in the Spring and Summer Sessions.
- **EGR 425 Signal and System Analysis (4 credits)**
The analysis and synthesis of complex signals and the response of linear systems to complex signals. Singularity functions, orthogonal bases, Fourier synthesis of periodic signals. Exponential synthesis of aperiodic signals, double-sided Laplace transforms, Fourier transforms. Frequency response, time-bandwidth reciprocity, generalized modulation and sampling. A wide range of applications to engineering systems. Offered in the Winter Semester.
Prerequisites: EGR 326 and MTH 254.
- **EGR 426 Advanced Electronics (4 credits)**
A continued study of concepts and techniques of electronics selected as examples of advanced thinking. Recent areas of concentration have been: Communication Electronics: high-frequency transistor behavior, design of multistage transistor behavior, design of multistage transistor amplifiers, modulation and demodulation, computer simulation of modulated waveforms, oscillators, resonant load amplifiers; and pulse techniques: linear wave shaping, pulse transformers and transmission lines, switching characteristics of devices, clipping and clamping circuits, multivibrators, negative-resistance devices, and switching circuits. Offered in the Winter Semester.
Prerequisite: EGR 326.
- **EGR 427 Communication Systems (4 credits)**
An introduction to the problem of communication in the presence of noise. Introductory probability, random variables, and the random process, with application to the characterization and analysis of noise and random signals. Amplitude and frequency modulation systems, pulse modulation techniques, and the elements of detection theory. Offered in the Fall Semester.
Prerequisites: EGR 344 or EGR 425.
- **EGR 431 Automatic Control Systems (4 credits)**
Review of basic methods for determining the equations of motion of various types of linear components and systems. Transient response to deterministic inputs and the definition of Lagrangian stability. The root locus method. Open- and closed-loop frequency response. Bode and Nyquist diagrams. Compensating networks. Use of analog computers in control system design. Offered in the Winter Semester.
Prerequisites: MTH 255 and EGR 326.

ENGINEERING

EGR 432 Analysis of Nonlinear Systems (4 credits)

Analysis of first- and second-order nonlinear physical systems with many engineering applications. Piecewise-linear models for zero-memory systems. Phase-plane analysis for autonomous systems; singular points, equilibrium, limit cycles. Stability analysis via theorems of Poincaré, Lienard, and Bendixson. Perturbation theory with applications to both forced and autonomous systems, averaging methods. Subharmonics, jump phenomena, and frequency entrainment in forced systems. Offered in the Fall Semester. Prerequisites: MTH 255 and EGR 326.

EGR 445 Electric and Magnetic Fields (4 credits)

Introduction to the fundamental concepts of electric and magnetic fields. Fundamental laws, basic postulates, Maxwell's equations. Electrostatics, magnetic fields of steady currents, time varying fields, waves, transmission lines, reflection and refraction at interfaces, guided waves, radiation and elementary radiators. Use of computers for solution of practical problems. Offered in the Fall Semester. Prerequisite: EGR 344.

EGR 448 Thermal Energy Transport (4 credits)

A continued study of the basic concepts, properties, and descriptions of the three fundamental modes of heat transfer (conduction, convection, and thermal radiation); theoretical, numerical, and analogical methods of analysis of steady, transient, 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. Offered in the Winter Semester.

Prerequisite: EGR 344.

EGR 454 Direct Energy Conversion (4 credits)

Thermoelectric engines, thermionic converters, magnetohydrodynamic engines, photovoltaic effect and solar cells, free energy and fuel cells.

Prerequisites: EGR 241 and EGR 326.

EGR 461 Advanced Mechanics of Materials (4 credits)

Advanced topics in mechanics, such as beams on elastic foundations, curved and composite beams, theory of plates, 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 harden-

ENGINEERING

ing theories for metals and strengthening mechanisms in solids. Offered in the Winter Semester.

Prerequisite: EGR 361.

EGR 472 Electronic Properties of Materials (4 credits)

- Crystal structure of important electronic materials, band theory of solids, transport phenomena, particle statistics, equilibrium distribution of carriers in semiconductors, electrical conductivity; optical and thermal effects in semiconductors, and introduction to the dielectric and magnetic properties of materials. Experimental work may include Hall effect, Haynes-Shockley experiment, optical determination of energy band gap, thermal effects, growth and x-ray characterization of single crystals. Offered in the Winter Semester.

Prerequisites: EGR 172 and consent of the instructor.

EGR 473 Solid-State Electronic Devices (4 credits)

- Non-equilibrium carrier densities, transport of excess carrier densities, p-n junctions and junction devices, interface studies, MOS structures, contemporary device theory, fundamentals of micro-electronics and integrated circuits. Experimental work may include fabrication of alloy junction diodes and tunnel diodes, growth and characterization of silicon dioxide layers, solid-state diffusion and diffused junction diodes, measurement of surface-state density, thin semiconducting films. Offered in the Fall Semester.

EGR 481 Hybrid Computation and Simulation (4 credits)

- An introduction to the application of hybrid and iterative analog computing techniques to large scale engineering problems. Sampling, split simulation, nonlinear function generation, time delay generation, parameter optimization, partial differential equations, and error analysis of hybrid computing systems. Offered in the Fall Semester.

Prerequisites: EGR 326 or consent of the instructor.

EGR 485 Switching Theory (4 credits)

- Boolean algebraic symbolization for nets of binary switched circuits such as counters, timers, and coders for typical computer subsystems. Constructive computation of nonredundant expansions by formal matrix methods are considered and translated into laboratory devices with building block computer elements for computation and on-line data reduction. Introduction to sequential switching decomposition for control and programming of systems. Offered in the Winter Semester.

Prerequisites: EGR 326 or consent of the instructor.

UNDERGRADUATE COURSE OFFERINGS IN COMPUTER AND INFORMATION SCIENCE

CIS 180 Introduction to Computer Programming (4 credits) and Problem Solving

Flow chart techniques for algorithm development and problem solving. Semantics and syntax of the FORTRAN programming language. Applications include elementary statistics, data processing and sorting.

Prerequisite: 2 years of high school mathematics.

CIS 181 Intermediate Computer Programming (4 credits) with Numerical Applications

Advanced topics in FORTRAN. Elementary numerical methods, including solution of

ENGINEERING

algebraic equations, matrix and vector algebra, least squares curve fitting, integration, optimization, regression and correlation analysis.

Prerequisites: CIS 180 and MTH 134 or equivalent.

CIS 182-183 Introduction to Computer Languages and Symbolic Manipulation (4 credits each)

Social and cultural impact of the computer. Applications such as music composition, computer-assisted instruction, computerized art, machine translation, text editing, and information retrieval. Non-numerical symbolic manipulation and computational techniques. Introduction to various computer languages; a detailed study of a major language such as PL/1. CIS 182 is offered in the Fall Semester and may be taken alone. CIS 183 which is offered in the Winter Semester has CIS 182 as a prerequisite.

CIS 205 Special Topics in Computer and Information Science (4 credits)

Introductory and Intermediate topics in special areas of Computer and Information Science. May be taken more than once.

CIS 209 Project in Computer and Information Science (2 or 4 credits)

Independent project work in computer and information science. Topic to be chosen in advance of registration by the student in consultation with an instructor. May be taken more than once.

CIS 290 Assembly and Systems Programming (4 credits)

Computer programming in the primary language of the 360 system: the Assembly language, enabling the composition of special and most efficient routine used in creating new computer languages or applications. Introduction to the structure of compilers and supervisor programs, operating systems, and the macroprograms of input/output device management.

Prerequisites: Eight credits in computer programming including practical knowledge of two computer languages, or concurrence of the instructor.

CIS 382 Introduction to Information Structures (4 credits)

An introduction to information structures and their application in digital computer programming. Topics include linear lists, trees, lists and their various representations using sequential and linked allocation. Emphasis is placed on the application of these general concepts to particular programming problems in data manipulation, discrete simulation, and formal symbolic manipulation.

Prerequisite: CIS 181 or CIS 183.

CIS 405 Advanced Special Topics in Computer and Information Science (4 credits)

Advanced study in special areas of computer and information science. May be taken more than once.

CIS 409 Directed Research in Computer and Information Science (2, 4, 6, or 8 credits)

Independent work on advanced projects. Topics to be chosen in advance of registration by the student in consultation with an instructor. May be taken more than once.

CIS 480 Applied Numerical Methods (4 credits)

The application of digital computer numerical methods to engineering problems.

ENGINEERING

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. Offered in the Winter Semester.

Prerequisite: EGR 326 or consent of the Instructor.

CIS 582 Introduction to Computer Programming in PL/1 (4 credits)

This is a first course in computer programming in the PL/1 language. Emphasis is placed on flow charts and the formulation of algorithms. Each student develops and executes approximately 10-12 programs. Applications are general in nature; many deal with simple statistics (average, standard deviation, median) and histograms. Students are encouraged to write programs in any area of their choice. Not open to engineering students.

Prerequisite: A good working knowledge of high school algebra.

GRADUATE CURRICULUM IN ENGINEERING

For detailed descriptions of graduate courses and admission requirements, see the **Graduate Bulletin**. The School of Engineering presently offers instruction leading to the degrees of Master of Science and Doctor of Philosophy in Engineering, and to the Professional Development degree. Options may be pursued in control and communication systems; energy systems; computer science; and electromagnetic and optical systems.

GRADUATE COURSE OFFERINGS

EGR 500	Graduate Seminar	(1 credit)
EGR 505	Special Topics in Engineering	(4 credits)
EGR 509	Engineering Design Project	(2, 4, 6, 8, 10, or 12 credits)
• EGR 510	Introduction to Continuum Mechanics	(4 credits)
• EGR 520	Systems Analysis and Models	(4 credits)
• EGR 521	Engineering Optimization	(4 credits)
• EGR 530	Engineering Probability and Statistics	(4 credits)
• EGR 531	Operations Research	(4 credits)
• EGR 535	Large Scale Systems	(4 credits)
• EGR 540	Electromagnetic Signals and Waves	(4 credits)

ENGINEERING

EGR 548	Thermal Energy Transport	(4 credits)
EGR 549	Fluid Transport	(4 credits)
EGR 550	Coherent Optics	(4 credits)
EGR 551	Convective Transport Phenomena	(4 credits)
EGR 552	Thermal Transport Phenomena	(4 credits)
EGR 555	Energy and Information Systems	(4 credits)
EGR 561	Advanced Mechanics of Materials	(4 credits)
EGR 562	Mechanical Properties of Materials	(4 credits)
EGR 572	Electronic Properties of Materials	(4 credits)
EGR 573	Solid-State Electronic Devices	(4 credits)
EGR 580	Digital Computer Methods in Engineering	(4 credits)
EGR 581	Hybrid Computation and Simulation	(4 credits)
EGR 585	Switching Theory	(4 credits)
EGR 586	Computer Architecture	(4 credits)

Professional Development Program

EGR 901	Engineering Systems Analysis	(4 credits)
EGR 902	Digital Computer Methods	(4 credits)
EGR 903	Analog and Hybrid Computer Methods	(4 credits)

Computer and Information Science

CIS 582	Introduction to Computer Programming in PL/1	(4 credits)
----------------	---	--------------------



SCHOOL OF PERFORMING ARTS

OFFICERS OF ADMINISTRATION

- TERENCE E. KILBURN Associate Dean
Theatre Arts
- JERRY L. DAHLMANN Administrative Director
Academy of Dramatic Art
- THOMAS F. KIRCHNER Administrative Assistant
School of Performing Arts

OFFICERS OF INSTRUCTION

- DONALD D. O'DOWD President
A.B., Dartmouth College; M.A., Harvard University;
Ph.D., Harvard University
- FREDERICK W. OBEAR Vice President for Academic Affairs
B.S., Lowell Technological Institute; Provost
Ph.D., University of New Hampshire
- JILL P. COURTNEY Lecture in Movement
B.A., Butler University Academy of Dramatic Art
- ALEXANDER N. GRAY Lecturer in Acting
Academy of Dramatic Art
Honors Diploma and Teaching Certificate,
Academy of Music and Dramatic Art, London
- W. W. KENT Associate Professor of Performing Arts
General Director, Office of Cultural Affairs
B.M.E., University of Kansas; M.M., University of Illinois
- TERENCE E. KILBURN Associate Professor of Dramatic Art,
Associate Dean, Theatre Arts, Artistic Director,
Meadow Brook Theatre
Professional artist in residence;
actor and director in London and New York
- CATHERINE KOZUBEI Lecturer in Voice
Academy of Dramatic Art
Teachers Diploma, Central School of Speech and Drama (London);
B.A. and M.A., University of Michigan

PERFORMING ARTS

PAUL A. D. LEE

Special Instructor in Acting
Chairman, Academy of Dramatic Art

Professional artist in residence;
Actor, director, dramatist

ELISABETH ORION

Lecturer in Technique and Acting
Academy of Dramatic Art

Diploma, Central School of Speech and Drama, London

ADA B. MATHER

Special Instructor in Acting
Academy of Dramatic Art

Honors Graduate,
Guildhall School of Music and Drama (London)

FRED D. THOMPSON

Visiting Lecturer in Theatre Arts
Academy of Dramatic Art

B.A. and M.S., Kansas State Teachers College

Oakland University constitutes a unique cultural and intellectual milieu in which the School of Performing Arts is enabled to concentrate upon the exacting realities of requirement and opportunity in the contemporary world of the professional performing arts. A distinguished faculty consisting of successful performers with a vocation to teach offers unusual advantages to students of exceptional talent and potential. Because some members of the faculty are artists-in-residence, permanent senior teacher-performers, or visiting artists of the Meadow Brook Theatre or the Meadow Brook Music Festival, the training of students is directly linked with the current practices and standards of the finest professional artists. The ambiance of the University's professional performing arts enterprises affords to the corresponding training courses of the School both models and masters.

All courses of the School embody the highest quality of training. Through specialized curricula and schedules, these courses prepare young artists for careers on the theatrical or concert stage. The criterion of achievement is excellence; the criterion of excellence is based on competitive professional performance. Every effort is also made to encourage in students a sense of the artist's responsibilities in society and to develop a concept of the performing arts as vital to the sound cultural health of society. Those who seek a place in the performing arts professions aspire to the combination of artistic sensitivity, awareness, and high achievement in performance capability, which is engendered by such programs. Graduates who demonstrate exceptional abilities and who reach requisite standards of performance may be invited to join the professional performing arts enterprises on the campus of Oakland University.

PERFORMING ARTS

The faculty of the School of Performing Arts is authorized to develop its own standards for performance, curriculum, admission, and graduation. These standards reflect the realities of competitive professional performance. No formal stipulation is made concerning the qualifications of candidates, but these programs best suit emergent actors and concert artists wishing to concentrate on the development of skills of competence. Moreover, experience shows that the more mature students derive most benefit from intensive training. Provided students have a natural talent, the better their general education before entering professional training, the better are their chances of success. Candidates for admission must distinguish themselves in competitive performance and auditions. It is not expected that students will undertake other academic work while training in the programs of the School of Performing Arts.

The School of Performing Arts, through its relationship with resident performing artists in the Theatre and Festival, has launched two highly successful professional training courses. The Academy of Dramatic Art offers an intensive two-year acting course which normally selects its faculty from professionals associated with the resident company of the Meadow Brook Theatre. A high standard of performance is expected in all aspects of the training, and those who demonstrate the required excellence are eligible for the Academy's Diploma in Dramatic Art.

Summer institutes in the School of Performing Arts offer short-term workshops and master classes in music and the dance. The unique concepts pioneered and developed by these summer programs, together with the remarkable attainments of this kind of intensive instruction, exemplify Oakland's meritorious contributions to performing arts education.

The scope of the School of Performing Arts continues to broaden. The Academy's distinctive instructional capabilities have been augmented by the organization of courses at the University Course level expressly designed to introduce the theatre to students in the University's general education program. These courses provide a vital link between Oakland's undergraduate curricula and the endeavors of the Academy and of the Theatre. Plans are under way for professional training in music and in the dance, as well as for master classes in the other performing arts. As essential elements of a comprehensive enterprise in the performing arts, television and film are cited for later inclusion. Both present and future programs of professional training will extend and deepen the significant con-

PERFORMING ARTS

tribution Oakland University seeks to make to the larger community through its dynamic and diversifying center for the performing arts.

The School of Performing Arts endeavors, then, to concentrate on the diversification and refinement of skills of competence; it also assumes a major responsibility for the development of knowledgeable, alert audiences of tomorrow. The confluence of these concerns, to elevate performance capability and to foster artistic sensitivity and awareness, marks the larger purpose of the University in entering this area.

ACADEMY OF DRAMATIC ART

Jerry L. Dahlmann
Paul A. D. Lee

Administrative Director
Chairman

MEMBERS OF THE FACULTY

Jill P. Courtney	Lecturer in Movement
Alexander N. Gray	Lecturer in Acting
Terence E. Kilburn	Associate Professor of Dramatic Art
Paul A. D. Lee	Special Instructor in Acting
Elisabeth Orion	Lecturer in Technique and Acting
Ada B. Mather	Special Instructor in Acting
Fred D. Thompson	Visiting Lecturer in Theatre Arts

The Academy of Dramatic Art provides practical training in acting for students who intend to make their career in the professional theatre. Intensive training in voice and speech, movement, and acting technique are coordinated to assure that the various elements of acting unite in an overall design for developing the actor's craft. The culmination of the training is the opportunity of performing in productions of the Studio Company. Here senior students aspire to refine their professional techniques in the living theatre. Under the artistic leadership of Terence E. Kilburn, who is also Artistic Director of the Theatre, both the disciplines and experience of the resident professional actors and the diversified professional experience of other members of faculty help to shape and sharpen the emergent talents of the actors in the Studio Company.

A distinguished faculty, many of whom have taught at the Royal Academy of Dramatic Art in London and at leading acting schools in North America, is chosen from among professional actors and directors with a vocation to teach. Specialized classes in style and technique complement the normal curriculum and have been given by distinguished artists from leading theatres—such as the

PERFORMING ARTS

Tyrone Guthrie Theater and Stratford Festival Theatre—and acting schools in North America. Many actors and directors of the Meadow Brook Theatre also give specialized classes in style and technique to complement the basic Academy training program.

Carefully controlled class size permits the close individual attention that students need to cultivate the discipline necessary in the professional theatre. Full professional training requires a minimum period of two years, and candidates must be prepared to remain as full-time students for that period of time. Those who complete 66 credits and who satisfactorily pass each semester's examinations are eligible for the Academy's Diploma of Dramatic Art. Provided the candidate has a natural talent for acting, the minimum educational requirement for entry is a high school diploma or its equivalent. Those who successfully pass competitive entrance auditions are admitted to the Academy. The caliber of training, together with the stimulus of the close link with the resident professional company of the Meadow Brook Theatre, places graduates at an advantage in seeking professional employment. Some graduates have been invited to join the resident company of the Meadow Brook Theatre. Others are now members of leading professional repertory companies across the nation.

All communications concerning the professional training course in acting, requests for information on applications for audition should be directed to the Administrative Director of the Academy of Dramatic Art, 130 Varner Hall, Oakland University, Rochester, Michigan 48063.

OFFICE OF THE PROVOST

GEORGE T. MATTHEWS, Vice Provost

DEPARTMENT OF LEARNING SKILLS

PETER G. EVARTS Acting Chairman
B.A., Eastern Michigan; Professor of English and Learning Skills
M.A., University of Michigan; Ph.D., Wayne State University

N. Z. BRYANT, JR. Instructor
B.A., Western Michigan University;
M.A., Western Michigan University

JAMES H. BULLOCK Assistant Provost
B.A., Temple University Assistant Professor

STANLEY A. CHILDRESS Lecturer
B.A., Oakland University

BERNADETTE DICKERSON Director, Career Opportunities
Program
B.S., Ohio State University Special Instructor

BARBARA ANN GALLOW Assistant Professor
A.B., Anne Marie College; M.A., Brandeis University;
C.A.S., Harvard Graduate School of Education

BARBARA B. HAMILTON Instructor
B.A., Cornell University; M.A., Michigan State University

MARGARET L. KURZMAN Special Instructor
B.A., Michigan State University; M.A., Oakland University

MARY ANN VOSGERCHIAN Instructor
B.A., Wayne State University; M.A., Wayne State University

DAVID R. WEINBERG Instructor
B.A., University of Bridgeport; M.A., Columbia University

Staff of the Reading-Writing Center

E. HAROLD BENNETT Special Instructor in Reading
B.S., Appalachian State Teachers College;
M.Ed., University of Michigan

ETHEL M. McCULLOUGH Special Instructor in Reading
B.A., Wayne State University

The Department of Learning Skills aids freshmen in the University in the acquisition of basic learning tools necessary for the performance of college level academic work. While the emphasis in depart-

OFFICE OF THE PROVOST

mental courses is on coherent and generally effective writing, all modes of communication, including speech and reading, as well as other study-related activities such as library search skills and research and annotation are encompassed within the curricula of Learning Skills courses.

Students are placed in Learning Skills courses according to the results of pre-registration diagnostic testing and, unless exempted, are encouraged to enroll in a two-course sequence in the form and content of composition. The courses are so designed that a student who completes the sequence should also be able to meet the University's certification of proficiency in writing for graduation.

The Department of Learning Skills also staffs and maintains a Reading and Writing Center for students who need extra help in these specific skills. Students may use the Center on a voluntary basis or upon referral by their instructors for short, non-credit courses, or they may be assigned to the Center by their instructors in Learning Skills for regular credit tutorial courses.

Although courses in Learning Skills do not fulfill specific distribution requirements, they do count toward graduation. Students who are enrolled in courses below the 100-level should be in close contact with their advisors, however, to insure that they do not exceed the specific limitation of four such courses counting toward the completion of the baccalaureate.

Course Offerings:

The following courses, with the exception of LS 200, represent the core writing courses for freshman students. Students are assigned to the courses on the basis of diagnostic tests, and they should enroll in the course designated at orientation or registration.

LS 050 Basic Writing Skills I (4 credits)

A course, limited in enrollment to twelve students per section, in writing and related study skills (reading; note-taking; library; discussion) intended to prepare students to enter the regular LS writing program. Graded S/N. Enrollment by assignment. No prerequisite.

LS 075 Tutorial in Writing Skills (4 credits)

A one-to-one course in reading, writing, and study skills. Instruction by the faculty of Learning Skills or the Reading-Writing Center. At least six hours per week involvement (2 hours conference, 4 hours preparation). May be taken separately or in conjunction with LS 050, LS 100, or LS 101. Graded S/N. Open to all students by referral and permission of staff. Hours arranged. No prerequisite.

LS 100 Basic Writing Skills II (4 credits)

A course emphasizing the formal and functional elements in expository writing. Students are introduced to syntactic and rhetorical patterns of the English sentence

OFFICE OF THE PROVOST

and related patterns of paragraph development. Graded S/N. Enrollment by assignment. No prerequisite.

LS 101 Basic Writing Skills III (4 credits)

A course emphasizing the development of extended rhetorical structures, with focus on organizational patterns and the principles of logic, coherence, and unity. The course introduces student to techniques of persuasive argument and to fundamental methods of research and annotation. Graded S/N. Enrollment by assignment. Prerequisite: LS 100 or permission of staff.

LS 200 Writing in Special Fields (4 credits)

A course designed to explore the formal, stylistic, and annotative methods related to specific fields and disciplines, e.g., writing and research in education; technical writing. Open to all students. No prerequisite.

FACULTY OF THE LIBRARY

OFFICERS OF ADMINISTRATION

GEORGE L. GARDINER	Dean
ROBERT G. GAYLOR	Associate Dean
PHILIP Y. HOWARD	Assistant Dean for Technical Services
NANCY S. COVERT	Assistant to the Dean

FACULTY

DONALD D. O'DOWD	President
A.B., Dartmouth College; M.A., Harvard University; Ph.D., Harvard University	
FREDERICK W. OBEAR	Vice President for Academic Affairs
B.S., Lowell Technological Institute; Provost Ph.D., University of New Hampshire	
LOUISE M. BUGG	Assistant Professor
B.A., University of Michigan; A.M.L.S., University of Michigan	
JENNIFER E. BURKE	Instructor
B.A., Macalester College; M.S.L.S., Simmons College	
NANCY S. COVERT	Assistant Professor
B.A., Oakland University; A.M.L.S., University of Michigan	
JENNIE B. CROSS	Assistant Professor
B.A., Harding College; A.M.L.S., University of Michigan	
GEORGE L. GARDINER	Professor
A.B., Fisk University; A.M.L.S., University of Chicago	
ROBERT G. GAYLOR	Associate Professor
B.A., Michigan State University; M.L.S., University of Oklahoma	
MARY KAY HEEREN	Instructor
B.A., University of Illinois; M.S.L.S., Wayne State University	
EILEEN E. HITCHINGHAM	Assistant Professor
B.S., Chestnut Hill College; M.L.S., Western Michigan University	
PHILIP Y. HOWARD	Associate Professor
B.A., San Francisco State College; M.L.S., University of California (Berkeley)	

FACULTY OF THE LIBRARY

PAUL T. JACKSON B.S., Eastern Michigan University; A.M.L.S., University of Michigan	Assistant Professor
MELBOURNE JORDAN B.A., University of Texas (Austin); M.L.S., University of Texas (Austin)	Assistant Professor
JANET A. KROMPART B.A., University of California (Berkeley); M.L.S., University of California (Berkeley)	Assistant Professor
ANDREA L. MANSOUR B.A., Oakland University; M.S.L.S., Wayne State University	Instructor
MARGARET S. McDONALD B.A., Michigan State University; B.S.L.S., University of North Carolina	Lecturer
RICHARD L. PETTENGILL A.B., Bowdoin College; M.S.L.S., Columbia University	Assistant Professor
ANN M. POGANY B.A., Marygrove College; A.M.L.S., University of Michigan	Instructor
LOIS L. REILLY B.A., Eastern Michigan University; B.S.L.S., Western Reserve University; M.A., University of Michigan	Associate Professor
RITA M. RUNCHOCK B.A., University of Michigan; A.M.L.S., University of Michigan	Instructor
JULIE A. SIGLER B.S., University of Michigan; M.S.L.S., University of Michigan	Visiting Instructor
RITA SPARKS B.A., Wayne State University; M.S.L.S., Wayne State University	Instructor
SUZANNE M. TIPLER B.S., Eastern Illinois State College; M.S.L.S., University of Illinois	Assistant Professor
ELIZABETH A. TITUS B.A., Oakland University; A.M.L.S., University of Michigan	Instructor

The faculty of the Library direct, staff and maintain the University libraries and their collections of books and related materials. With the advice of members of the other organized faculties, the Library faculty select materials to be added to the Library's collections and are responsible for the acquisition, preparation, and organization of these materials.

FACULTY OF THE LIBRARY

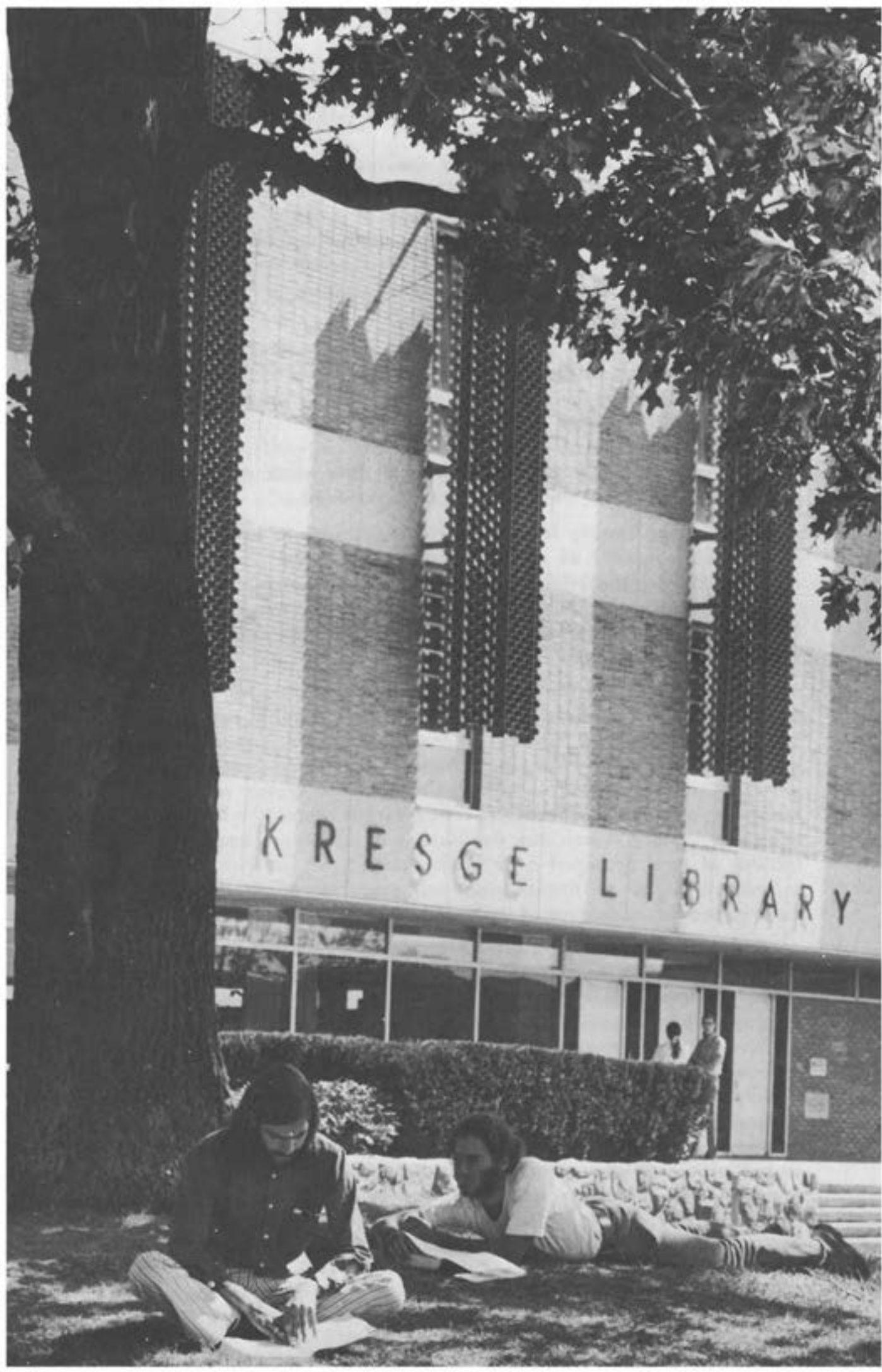
Faculty of the Library hold appointments as public services or technical services librarians. The Division of Technical Services is a centralized unit, responsible for acquiring, cataloging, and preparing books, periodicals, microforms, documents, and other kinds of library material. The Division of Public Services, on the other hand, functions in terms of controlled decentralization, offering a variety of direct services to the Library's users.

The faculty in both library divisions are responsive to the educational thrusts of the University and active participants in the academic enterprise. They provide one-to-one instruction for students in the use of the Library and assist them in mastering techniques for the retrieval of information from a variety of bibliographic sources, thus participating with the students in their attempts to search out the many routes to knowledge.

Similarly, the library faculty provide assistance to teachers and scholars in a variety of ways, making every effort to secure for them the library materials needed to support academic programs and faculty research. For example, library faculty prepare subject bibliographies and periodical listings for individual scholars and academic departments.

Since the faculty of the Library are also responsible for research outside of the immediate specificities of bibliographic support of current curricula and faculty research, they are concerned to develop holdings, for example, in interdisciplinary and generalized works of reference and in other bibliographic source materials. Moreover, as a library constitutes a trust for the future, the librarians of Kresge Library search out, evaluate, and sometimes acquire collections of rare or out-of-print books, periodicals, and documents in order to round out the informational resources of the University both in and beyond areas of immediate curricular concern.

Library faculty are involved in continuing research in various areas of academic librarianship. Specialists in the performing arts, in the sciences, in government documents, in general reference, in cataloging and classification, and in the development of library collections are represented on the faculty. The application of computer techniques to the operations of Kresge Library has advanced rapidly over the past few years, and further applications are in progress. As active members of state, regional, and national professional associations, Oakland University's Library faculty are aware of recent developments in academic libraries: they make persistent efforts to provide better services, to develop collections of high quality, and in short, to increase the excellence and usefulness of the University.



DIVISION OF CONTINUING EDUCATION

OFFICERS OF ADMINISTRATION

- DONALD D. O'DOWD President
A.B., Dartmouth College; M.A., Harvard University;
Ph.D., Harvard University
- LOWELL R. EKLUND Dean
B.S., Michigan State University; M.S., Syracuse University;
Ph.D., Syracuse University
- KENNETH COVERT Director of Public Safety,
Meadow Brook Hall
B.S., Northwestern University
- ELEANOR DRIVER Director, Continuum Center
- SYLVIA FINK Psychologist, Continuum Center
B.A., Adelphi College; M.A., University of Boston;
Ph.D., University of Boston
- AUDREY I. MARRINER Director of Publicity and Public Relations
B.A., University of Michigan
- PAUL McDOWELL Assistant Manager, Meadow
Brook Hall
B.S., Wayne State University
- VIRGINIA MENZIES Registrar
- DOROTHY C. OWEN Director of Conference Services
B.S., Purdue University; M.A., Michigan State University
- MARGARET TWYMAN Meadow Brook Hall Manager
- HARRY B. VAN HOOK, JR. Assistant Dean for Courses,
Director of Management Education Programs
A.B., University of Michigan; M.A., University of Michigan
- ELINOR WATERS Staff Counselor, Continuum Center
B.A., Antioch College; M.A., University of Chicago

Oakland University recognizes that education is a never-ending process. Because man never outlives his need for intellectual enlightenment in order to perform effectively his mature roles as worker, parent, and citizen, the University established the Division of Continuing Education. The Division was the first of the University's academic divisions to initiate its programs in September, 1958. The program of the Division, which is a comprehensive and varied

CONTINUING EDUCATION

offering of courses, conferences, and special events open to adults of the community, is thus an integral part of the University function.

Inherent in the philosophy of Oakland University is the wish to induce in students an insatiable hunger for more and more knowledge. The pursuit of excellence is infinite; even the most dedicated students aspire to excellence they have not yet achieved. Accordingly, the University extends to its graduates and to other members of the community maximum educational opportunity in a conducive environment and offers lively encouragement to all to continue their education throughout their lives.

The Division offers courses, certificate programs, and conferences in professional and cultural subjects at university level in content. The Division differs from other academic units of the University in that its only prerequisite for taking courses is the desire to learn.

A program of evening classes, which includes old and new courses, is offered each term. Currently, 110 courses are offered in liberal arts and sciences, applied arts and sciences, technical subjects, management, and business.

The Division offers ten certificate programs for adults who wish to undertake a sustained program of studies in liberal arts, scientific-technical studies, business studies, small business, computing sciences C²S, management fundamentals, secretarial development, training for medical assistants, retail organization development, real estate. The Division also offers the Graduate Realtors Institute Program.

Conferences on various subjects are held throughout the year. Conference subjects range from the problems of widows and divorcees to real estate appraisal. Local issues such as air pollution control and problems of senior citizens are studied by officials and leaders of the community with the objective of mounting action programs leading to solutions or improvement.

In addition, the Division conducts numerous closed courses designed specifically to meet the needs of business, government, and social agencies.

The Division directs the Continuum Center for Life Planning, which offers a unique and meaningful psychological testing program and specialized counseling service.

Course brochures and informational brochures on programs are available upon request. Call 377-3120, or write the Division of Continuing Education, Oakland University, Rochester, Michigan 48063.

INDEX

- Academic Honors, 25
Academic Probation, 25
Academic Record, See Grades and Grade Point System
Academic Structure, University, 7
Academy of Dramatic Art, 6, 9, 362-363
Accounting, See School of Economics and Management
Accreditation, 10, 339
Activities, Student, 45-50
Administration, vi-viii
Admission, 15-18; Applications, 15-19; Foreign Students, 17; Out-of-State Students, 15; Requirements, 15; Transfer Admission, 15-17; See also Advising, Orientation, Readmission
Advanced Placement, 18
Advising, 20-21; Foreign Students, 43
Allport College, 4
Allport College Program, 98-101
Anthropology, See Sociology and Anthropology
Application Fee, 33
Area Studies Program, 266-274
Art and Art History, Department of, 113-121
Art Gallery, See University Art Gallery
Athletics, See Physical Education
Biological Sciences, Department of, 122-131
Board of Trustees, vi
Book Center, 40, 50
Buildings, University, 12-14
Business Administration, See School of Economics and Management
Calendar, iii
Career Advising and Placement Office, 42-43
Charter College, 4
Charter College Program, 101-104
Chemistry, Department of, 132-140
Child Care Center, 42
Chinese Language and Civilization, 197, 267-268; See also Majors, Requirements for Liberal Arts; See also Modern Languages
Chorus, See University Chorus
Classical Languages and Literatures, Department of, 141-146
College of Arts and Sciences, 7-9, 67-285
Colloquia, See University Courses, 93, 97
Committees, University Senate, 65; College of Arts and Sciences, 89
Community Service, 282-283
Computing and Data Processing Center, 11
Concentrations, Requirements for, Computer and Information Science, 274; East Asian Studies, 268; Environmental Studies, 275; Independent, 107-109, 295-296; Latin American Studies, 273; Premedical Studies, 276; Religious Studies, 276; Slavic Studies, 271; South Asian Studies, 269
Continuum Center, 1,372
Counseling, 40
Course and Credit System, 21-23; Change of Courses, 22; Course Competency, 23; Modified Major, 22; Petition of Exception, 22; Repeating Courses, 23
Course Fees, See Fees
Curricula, University, 7-9
Curriculum, Undergraduate, College of Arts and Sciences, 90-112; School of Economics and Management, 288-300; School of Engineering, 337-350
Degree Requirements, See Requirements, General
Degrees Offered, 7-9
Department Chairmen, 67-68
Dismissal, 25
Distribution Requirements, 91-93, 94-96
Division of Continuing Education, 1, 9, 371-372
Division of Student Affairs, 40
Economics, Department of, 147-153, 296-300; See also School of Economics and Management
Education, School of, See School of Education
Employment, Student, 31, 42-43
Engineering, School of, See School of Engineering
English, Department of, 154-163
Enrollment Deposit, 33
Environmental Studies, 275
Expenses, See Fees
Faculty, See Officers of Instruction
Faculty of the Library, 367-369
Fees, 32-35, 38
Financial Aid, 27-31
Food Service, 37
Foreign Student Office, 43; See also Admission, Advising
French Language and Literature, 200-203; See also Modern Languages
Exploratories, (See University Course), 93, 96-97

INDEX

- General Education, 4; See also Distribution Requirement, General Education
- Geography, 283
- German Language and Literature, 203-206; See also Modern Languages
- Grade Point Average, See Grades and Grade Point System
- Grades and Grade Point System, 23-25; Academic Record, 25; Grade Point Average, 24; I—Incomplete, 24; N—No Grade, 24; P—Progress, 24; S—Satisfactory, 24
- Graduate Programs, 1, 9, 285, 319, 356
- Greek, 146
- Health Certification Requirement, see Requirement, Health Certification
- Health Service, 42; See also Requirement, Health Certification
- Hebrew Language, 206
- Hindi-Urdu Language, 206
- History, Department of, 164-174
- Honors, Academic, See Academic Honors
- Housing, Student, 36-39; Housing Fees, 34, 38; On-Campus, 36-39; See also Residence Halls
- Incomplete Grade, See Grades and Grade Point System
- Independent Concentration, See Concentrations, Requirements for
- Independent Study, See Off-Campus Study Programs
- Interdepartmental Programs, Chairmen of, 68; Courses, 266-285, 347-348
- Interdisciplinary Programs, 4, 9
- Jewish Studies, 285
- Kresge Library, 11-12; See also Faculty of the Library
- Latin, 146
- Learning Skills, Department of, 364-366
- Library, See Kresge Library; See also Faculty of the Library
- Linguistics, Department of, 175-182
- Loans, 30
- Major, Modified, See Course and Credit System
- Major, Requirements for Engineering, 340-343
- Major, Requirements for Management, 289-293
- Major Standing, Requirements for, College of Arts and Sciences, 111; School of Economics and Management, 294
- Majors, Requirements for Elementary Teaching, 315-317; Core Program, 316; History/Social Science, 316; Language Arts, 317; Modern Language 199, 317; Music, 216; Science/Mathematics, 317
- Majors, Requirements for Liberal Arts: Anthropology, 249; Anthropology with Concentration in Area Studies, 250; Anthropology with Concentration in Linguistics, 250
- Art History, 114; Art, Studio, 118-119
- Biology, 123
- Chemistry, 132-133
- Chinese Language and Civilization, 197-198
- Classical Languages, 142; Classics with Concentration in Linguistics, 143.
- Economics, 147-149, 299-300
- English, 155; English with Concentration in Linguistics, 157
- History, 165; History with Concentration in Classics, 143; History with Concentration in Area Studies, 165, 266-274
- Latin, 143
- Latin American Languages and Civilization, 198
- Linguistics, 176-177; Linguistics with Concentration in Speech Communication, 178
- Mathematics, 184-185; Mathematics with Concentration in Computer Science, 186
- Modern Languages, 197; Modern Languages with Concentration in Linguistics, 197
- Music, 215-216
- Philosophy, 222-223; Philosophy with Concentration in Area Studies, 223; Philosophy with Concentration in Linguistics, 224
- Physics, 228-229
- Political Science, 235-236; Political Science with Concentration in Area Studies, 237, 266-274; Political Science with Concentration in Speech Communication, 261
- Psychology, 242-243; Psychology with Concentration in Linguistics, 180; Psychology with Concentration in Speech Communication, 261-262.
- Russian Language and Civilization, 198.
- Sociology, 249; Sociology and Anthropology, 250; Sociology with Concentration in Area Studies, 250; Sociol-

INDEX

- ogy with Concentration in Linguistics, 250; Sociology with Concentration in Speech Communication, 262; Sociology-Anthropology with Concentration in Speech Communication, 250.
- Majors, Requirements for Secondary Teaching, 314-315; Biology, 123; Chemistry 133; English 156; Latin, 143; Mathematics, 185-186; Modern Languages, 198; Music, 216; Physics, 229; Social Studies, 279-280
- Management, See School of Economics and Management
- Map, Campus, Inside Back Cover
- Mathematics, Department of, 183-194
- Meadow Brook Music Festival, 5, 50-51, 360-361
- Meadow Brook Theatre, 5, 51, 360-361, 363
- Midrasha College, See Jewish Studies
- Minors, Requirements for Elementary Teaching, 317-318; History/Social Science, 317; Language Arts, 318; Science/Mathematics, 318
- Minors, Requirements for Secondary Teaching, 314-315; Art, 121; Biology 123; Chemistry, 134; English, 157; History, 165; Mathematics, 186; Modern Languages, 199; Physics, 229; Science, 283; Social Studies, 280
- Modern Language, Teaching of, 213; See also Modern Languages
- Modern Languages and Literatures, Department of, 195-213
- Music, Department of, 214-221
- New College, 4
- New College Program, 104-107
- No Grade, See Grades and Grade Point System
- Oakland Center, 50
- Oakland University, Academic Structure, See Academic Structure; Accreditation, See Accreditation; Buildings, See Buildings, University; Curricula, See Curricula, University; Governance, 10; History, 2-6; Residence Halls, See Residence Halls
- Oakland University Foundation, 2, 4, 7, 63-64
- Off-Campus Study Programs, 280-283
- Officers of Instruction, College of Arts and Sciences, 68-89; School of Economics and Management, 287-288; School of Education, 309-314; School of Engineering, 335-337; School of Performing Arts, 359-360
- Offices of the University, 53-62
- Orientation, 19-20; Fees, 33
- Out-of-State Tuition Rules, 35
- Parking, 33
- Performing Arts, School of, See School of Performing Arts
- Petition of Exception, See Course and Credit System
- Philosophy, Department of, 222-227
- Physical Education, 48-50
- Physics, Department of, 228-234
- Placement Office, 42-43
- Political Science, Department of, 235-241
- Portuguese Language, 207
- Premedical Studies, 276
- Probation, See Academic Probation
- Progress Grade, See Grades and Grade Point System
- Psychological Services, 42
- Psychology, Department of, 242-248
- Reading Center, 41, 365
- Readmission, 21
- Refunds, 34-35, 38
- Regulations Governing Courses, 111-112, 349-350
- Repeating Courses, See Course and Credit System
- Requirement, Elected Major, 91, 109-111; See also Majors, Requirements for
- Requirement, See General Education distribution requirements, 90, 91-107, 290-291, 342-343
- Requirement, Health Certification, 19
- Requirement, Residence, 90
- Requirements for Admission, See Admission
- Requirements for Concentrations, See Concentration, Requirements for
- Requirements for Liberal Arts Majors, See Majors, Requirements for Liberal Arts
- Requirements for Secondary Teaching Majors, See Majors, Requirements for Secondary Teaching
- Requirements for Secondary Teaching Minors, See Minors, Requirements for Secondary Teaching
- Requirements, General Degree; Bachelor of Arts, 90-91; Bachelor of Science, 293-294, 340-341
- Research Facilities, 11-12
- Residence Halls, 14, 36-39; See also Housing, Student

INDEX

- Russian Language and Literature, 207-210;
See also Modern Languages
- Satisfactory Grade, See Grades and Grade Point System
- Scholarships, 27-29
- School of Economics and Management, 7, 8, 287-307; See also Major, Requirements for Management; See also Majors, Requirements for Liberal Arts, Economics
- School of Education, 5, 7, 8, 9, 309-334; See also Graduate Programs; See also Majors, Elementary Teaching; See also Majors, Secondary Teaching; See also Minors, Elementary Teaching; See also Minors, Secondary Teaching; See also Teacher Certification
- School of Engineering, 7, 8, 9, 335-357; See also Graduate Programs; See also Major, Requirements for Engineering; See also Requirements, General Degree
- School of Performing Arts, 6, 7, 9, 359-363
- Science, Teaching Minor Courses, 283
- Selective Service, 44
- Senate Committees and Membership, 65
- Separation from the University, 25
- Social Studies Program, 279-280
- Sociology and Anthropology, Department of, 249-259
- Spanish Language and Literature, 210-213
See also Modern Languages
- Speakers Series, 48
- Speech Communication, Department of, 260-265
- Sports, See Physical Education
- Student Affairs, See Division of Student Affairs
- Student Clubs and Organizations, 45
- Student Dramatics and Music, 47-48
- Student Employment, See Employment, Student
- Student Enterprise Theatre, 47
- Student Government, 46
- Student Housing, See Housing, Student
- Student Life, 45-52
- Student Publications, 48
- Student Programs, 40-41
- Student Services, 40-44
- Student Skill Development Center, 41
- Student Volunteer Projects, 48
- Study Abroad, Information on, 43
- Swahili Language, 213
- Teacher Certification, 318-319
- Transfer Students; Admission, 15-17, 339-340; Financial Aid, 28
- Tuition, See Fees
- University Art Gallery, 52
- University Book Center, See Book Center
- University Chorus, Concert Band, Orchestra, 48
- University Courses, 93-98
- Veterans' Benefits, 43
- Wilson, Mr. and Mrs. Alfred G., 2
- Withdrawal, 26
- Writing Center, 41-42, 365

For Reference

Not to be taken

from this library



OAKLAND UNIVERSITY
 3 1816 00350458 8
 A05 4589 2 11

CAMPUS MAP LEGEND

- 1 Anibal House
- 2 Baldwin Memorial Pavilion
- 3 Baseball diamond
- 4 Central Heating Plant
- 5 Child Care Center
- 6 Club House
- 7 Continuum Center
- 8 Dodge Hall of Engineering

- 9 Fitzgerald House
- 10 Graham Health Center
- 11 Hamlin Hall
- 12 Hannah Hall of Science
- 13 Hill House
- 14 Knole Cottage
- 15 Kresge Library
- 16 Meadow Brook Hall
- 17 Meadow Brook Theatre

- 18 North Foundation Hall
- 19 Oakland Center
- 20 Paula and Woody Varner Hall
- 20a Varner Recital Hall
- 20b Studio Theatre (ADA)
- 21 Pryale House
- 22 Public Safety and Gate House
- 23 Running track
- 24 S. E. T. Barn Theatre

- 25 Soccer field
- 26 South Foundation Hall
- 27 Sports and Recreation
- 28 Sunset Terrace
- 29 Tennis Courts
- 30 Trumbull Terrace
- 31 Vandenberg Hall
- 32 Van Wagener Hall
- 33 Wilson Hall

