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OAKLAND UNIVERSITY

1971 GENERAL CATALOG 1972

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OFFICIAL PUBLICATIONS OF OAKLAND UNIVERSITY

Oakland University Undergraduate Programs

General Catalog published annually in May.

Oakland University Graduate Programs

Graduate Bulletin published annually in November.

Oakland University Summer School

Bulletin published annually in February.

Academy of Dramatic Art

Prospectus published annually in March.

Division of Continuing Education

Catalog published twice yearly in September and January.

CORRESPONDENCE DIRECTORY

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

Admissions Information and Bulletins

Undergraduate Students — Director of Admissions

Graduate Students — Dean of Graduate Study

Academy of Dramatic Art — Administrative Director

Business Matters

Vice President for Business Affairs

Career-oriented and Graduate Placement

Director, Placement Office

Continuing Education

Dean of Continuing Education

Educational Program, Transcripts, Academic Reports

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New Students — Director of Admissions

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Graduate Students — Dean of Graduate Study

Student Affairs and Services

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Graduate Students — Dean of Graduate Study

Student Housing

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**OAKLAND
UNIVERSITY**

GENERAL CATALOG

1971-1972

Rochester, Michigan

Oakland University affirms that an Assurance of Compliance with Title VI of the Civil Rights Act of 1964 has been executed and is fully applicable to the policies and practices of this University. Specifically, admission to the University or employment by the University is provided to qualified persons without discrimination on the ground of race, creed, color, or national origin.

All announcements in this catalog are subject to revision at the discretion of the University.

May, 1971

Volume XII, No. 1

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PROPOSED UNIVERSITY CALENDAR

1971-1972

Fall Semester, 1971

August 30, 31	Monday, Tuesday	Advising and orientation
September 1, 2, 3	Wed., Thurs., Fri.	Registration
September 7	Tuesday	Classes begin
November 25-28	Thursday-Sunday	Thanksgiving recess
November 29	Monday	Classes resume
December 10	Friday	Classes end
December 13	Monday	Final examinations begin
December 17	Friday	Final examinations end

Winter Semester, 1972

January 3	Monday	Advising and orientation
January 3, 4, 5	Mon., Tues., Wed.	Registration
January 6	Thursday	Classes begin
March 2-5	Thursday-Sunday	Winter recess
March 6	Monday	Classes resume
April 14	Friday	Classes end
April 17	Monday	Final examinations begin
April 21	Friday	Final examinations end

Spring Session, 1972

April 26	Wednesday	Registration
April 27	Thursday	Classes begin
May 29	Monday	Holiday
June 3*	Saturday	Commencement
June 16	Friday	Classes end
June 19, 20	Monday, Tuesday	Final examinations

Summer Session, 1972

June 21	Wednesday	Registration
June 22	Thursday	Classes begin
July 4	Tuesday	Holiday
August 11	Friday	Classes end
August 14, 15	Monday, Tuesday	Final examinations

This calendar is subject to revision.

*All students who have received or expect to receive their degrees during this academic year participate in this Commencement ceremony.



ACADEMY OF DRAMATIC

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BOARD OF TRUSTEES

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

Mr. Leland W. Carr, Jr.	Term expires August 11, 1978.
Mr. Marvin L. Katke, Chairman	Term expires August 11, 1978.
Mrs. Roger M. Kyes (Helen G.)	Term expires August 11, 1974.
Mr. David B. Lewis	Term expires August 11, 1972.
Mr. Ken Morris	Term expires August 11, 1974.
Mr. Arthur W. Saltzman	Term expires August 11, 1976.
Mr. Alan E. Schwartz	Term expires August 11, 1972.
Mr. Otis M. Smith, Vice Chairman	Term expires August 11, 1976.

Donald D. O'Dowd, President
John H. De Carlo, Secretary
Robert W. Swanson, Treasurer

ADMINISTRATION

Donald D. O'Dowd	President
James R. Appleton	Vice President for Student Affairs and Dean of Students
William W. Connellan	Assistant to the President
Elmer B. Cooper	Assistant President for Urban Affairs
John H. De Carlo	Secretary to the Board of Trustees and Vice President for Public Affairs
Lowell R. Eklund	Dean of Continuing Education
Frederick W. Obear	Vice President for Academic Affairs and Provost
Herbert N. Stoutenburg, Jr.	Assistant President for Administration
Robert W. Swanson	Treasurer of the Board of Trustees and Vice President for Business Affairs

ACADEMIC ADMINISTRATION

Frederick W. Obear	Vice President for Academic Affairs and Provost
Thomas H. Atkinson	Registrar

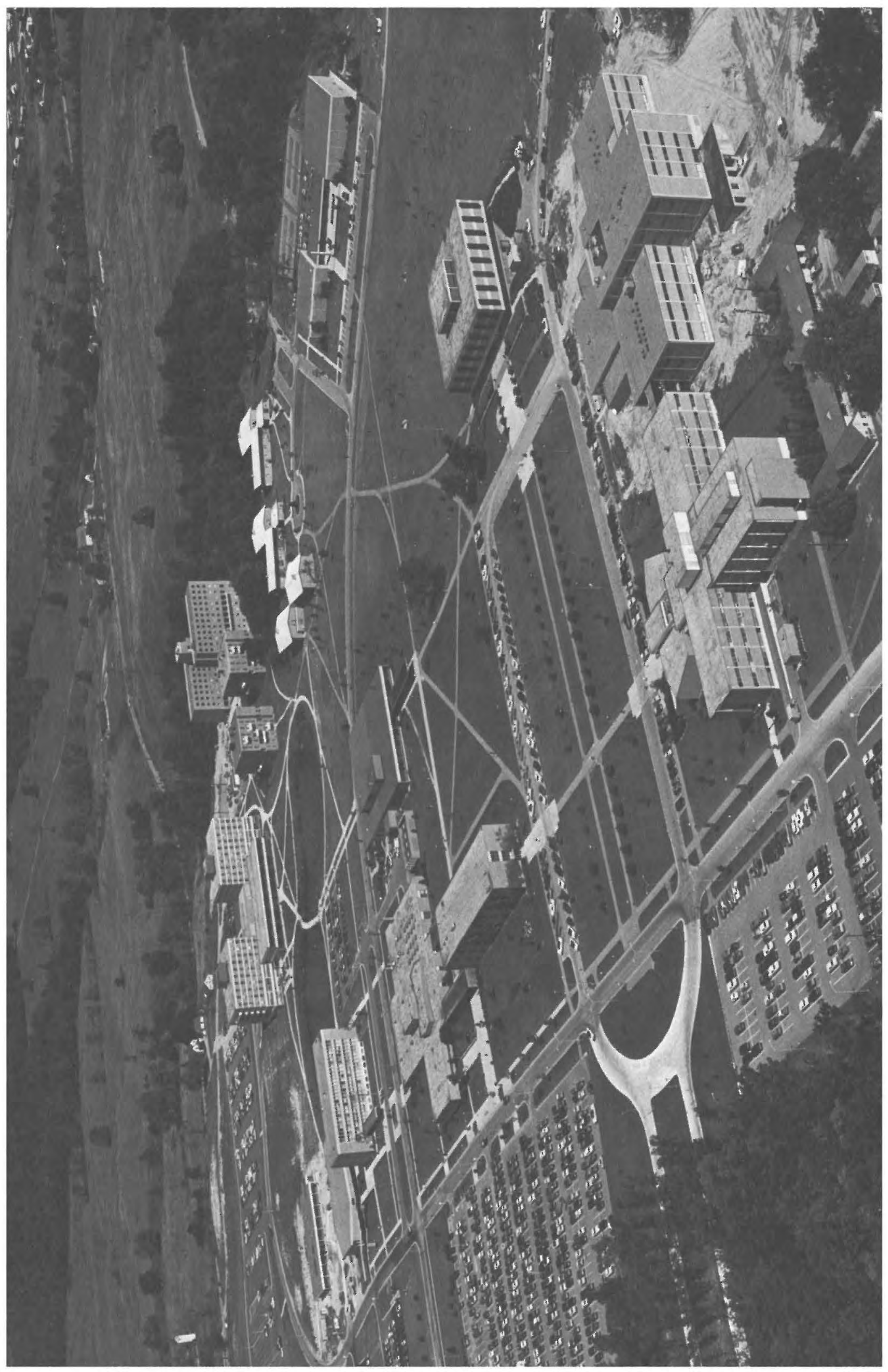
David C. Beardslee	Director of Institutional Research
Glen Brown	Director of Admissions and Scholarships
W. Royce Butler	Dean of the Library
Kenneth H. Coffman	Director of Psychological Services
John E. Gibson	Dean, School of Engineering
Richard C. Habermas	Director, Computing and Data Processing Center
Laszlo J. Hetenyi	Dean, School of Education
G. Philip Johnson	Dean of Graduate Study
Wilbur W. Kent	Associate Dean, School of Performing Arts
V. Everett Kinsey	Director, Institute of Biological Sciences
George T. Matthews	Dean, College of Arts and Sciences
Lewis N. Pino	Director of Research Services and Dean for Spring and Summer Sessions
Lowell C. Ruggles	Acting Registrar
Norton C. Seeber	Dean, School of Economics and Management
William F. Sturner	Vice Provost

BUSINESS AND FINANCIAL ADMINISTRATION

Robert W. Swanson	Treasurer of the Board of Trustees and Vice President for Business Affairs
Francis D. Clark	Supervisor, University Services
Lawrence K. Fitzpatrick	Director of Personnel
Ray T. Harris	Budget Director
David H. Jones	Purchasing Agent
Richard A. Light	Chief Internal Auditor
Robert J. McGarry	Controller
Dicron Tafralian	Grant and Contract Administrator

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James R. Appleton	Vice President for Student Affairs and Dean of Students
Earl N. Gray	Director of Public Safety
Dorothy C. Hope	Director of Placement and Career Advising
M. Patricia Houtz	Assistant Vice President for Student Affairs
Hollie L. Lepley	Director of Athletics and Physical Education
William W. Paleen	Director of Residence Halls
Manuel H. Pierson	Dean for Student Special Services
Alan Scott	Director of Oakland Center
Fred W. Smith	Dean for Resource Services
John W. Tapp	Assistant to the Vice President for Student Affairs
Dudley B. Woodard	Associate Dean for Resource Services and Dean of Freshmen



OAKLAND UNIVERSITY

ACADEMIC STRUCTURE AND PROGRAMS

Oakland University, an institution supported by the State of Michigan, reflects in its academic structure and in its undergraduate and graduate curricula a maturing realization of the conceptual mandate given to the University at its founding. Among the diverse germinal concepts then recommended to the emergent University several have had an especially marked effect in determining the direction and the level of courses of instruction. These were: that its students should be broadly educated, whatever their choice of profession; that its curriculum should emphasize quality and depth of study; that instruction in specific disciplines should focus primarily on principles and basic ideas, rather than on transitory applications or techniques; that its community of learning should be so structured as to enable its faculty effectively to help the students to educate themselves; and that its students should gain knowledge of other cultures, particularly of those non-Western in origin.

Oakland University accordingly seeks multiple means of implementing the intent of these recommendations. The evolving academic structure of the University thus at present comprises the College of Arts and Sciences, the School of Economics and Management, the School of Education, the School of Engineering, the School of Performing Arts, and the Faculty of the Library. The Summer School, in conjunction with the College of Arts and Sciences, the School of Education, the School of Performing Arts, and the Office of Graduate Study, offers credit courses at the undergraduate and graduate levels. Diversified non-credit courses are given by the Division of Continuing Education.

Responsive to its founders' recommendations on curricula, Oakland University requires that all undergraduates in degree programs take prescribed studies in a broad range of liberal arts and sciences. This general education component, a distinctive and imaginative creation of this University, extends to all undergraduates what the University conceives to be the basis of a liberal education. Four modes of meeting this requirement are open to almost all students. They may elect, within certain specifications, a pattern of what are called University Courses,

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a pattern at once appropriate to their major and broadening as an intellectual experience. Or they may elect to join Allport College, Charter College, or New College. Each of these inner colleges offers its own characteristic and stimulating version of the general education component. This component, in any of its four forms, is intended to complement the undergraduate's studies in the field of the major, whether in the humanities, the social sciences, mathematics, the natural sciences, management, teacher education, or engineering.

Undergraduate programs in the College of Arts and Sciences lead to the degrees of Bachelor of Arts and Bachelor of Science. The interdisciplinary approach to teacher education, moreover, provides that every teaching major is a major in the departmental or interdepartmental programs of the College of Arts and Sciences and that every teaching major concurrently takes professional education courses in the School of Education. In conjunction with the major, students in certain disciplines may intensify their work in depth by electing interdepartmental concentrations in area studies, linguistics, or premedical studies.

The newly formed School of Economics and Management offers a program in management leading to the degree of Bachelor of Science. This program is designed to prepare students for initial entry into many positions in business, government, and administration; alternatively, it may lead to entry into industry training programs or to graduate studies in management. The economics faculty of the School directs the liberal arts program in economics leading to the degree of Bachelor of Arts in the College of Arts and Sciences.

The baccalaureate program of the School of Engineering leads to the degree of Bachelor of Science and permits preparation for many engineering occupations in industry, government, teaching, and research. Though its curriculum precludes premature specialization by the undergraduate, its core program and its flexible patterns of advanced electives prepare students for careers in electrical, mechanical, and biological engineering; in systems engineering; in computer science; in materials engineering; in engineering management; and in energetics.

Graduate studies at Oakland University at present comprise eleven programs in the College of Arts and Sciences, the School of Education, and the School of Engineering. These programs lead to three degrees: the Master of Arts, the Master of Arts in Teaching, and the Master of Science. For further information on

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graduate programs, see pp. 209, 238, and 265 of this catalog and consult the *Graduate Bulletin*.

For further information on the programs of the School of Performing Arts, see pp. 267-71 of this catalog and consult the prospectus of the Academy of Dramatic Art. For further information on the programs of the Division of Continuing Education, see pp. 277-79 of this catalog and consult the catalog of the Division.

HISTORY

Oakland University owes its inception to the generosity of private persons, to the vision and planning of Michigan State University authorities, to the endeavor of its Foundation, and to the scholarly wisdom of its consultants.

In 1957 Mr. and Mrs. Alfred G. Wilson gave to the Board of Trustees of Michigan State University their private estate, Meadow Brook Farms, and two million dollars to assist in the foundation of a new university. On the estate are Meadow Brook Hall, formerly the Wilson home, and subsidiary residences and farm buildings. Much of the acreage is wooded and rolling. Oakland University buildings are concentrated on the northwest corner of the 1,600-acre campus located in Oakland County twenty-five miles north of Detroit.

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

Following the Wilson endowment, President John A. Hannah and other administrative officers of Michigan State University initiated plans and designated fifty community leaders, later called the Oakland University Foundation, to support and to assist in forming the emergent institution. As Michigan State University leaders began curriculum studies, the new Foundation invited twenty distinguished consultants to join both groups in a series of seminars framed to examine and assess new concepts of what a university should be. Some of these consultants were Vassar College President Sarah Blanding, Professor Henry Steele Commager of Amherst, California Institute of Technology Presi-

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dent Lee DuBridge, Johns Hopkins President Milton Eisenhower, Henry Heald of the Ford Foundation, and Henry Luce of *Time-Life* publications. From these curriculum studies and consultations Oakland University derived, as indicated in the foregoing section of this catalog, a conceptual identity, a complex of principles, and a commitment to values that have shaped its growth and informed its philosophy, yet left it free to innovate.

In September, 1959, the University's first chancellor, Durward B. Varner, and a faculty of twenty-five received the charter class of 570 students. An enrollment of 7,000 is projected for September, 1971. Initially housed in three buildings, the University now has twenty-one major buildings. By every quantitative measure the University grows in size and complexity as response to its programs and concepts widens.

Its historical growth, however, is not measurable in scope and diversification alone. Bench marks cut by succeeding groups of its students of distinction clearly indicate the high and rising levels of its excellence. Two such bench marks are the number of University scholars designated over the years for Woodrow Wilson National Fellowship Foundation awards and the recent brilliant competitive record set by students of the Department of Mathematics in national competition. Increasing numbers of its students in all disciplines are accordingly sought by the nation's leading graduate schools. Widespread national attention has also been directed by scholars of international reputation to the quality of its youthful faculty, to the effectiveness of its teaching, and to the recognizable style of its programs.

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

Other evidence of maturation in the intellectual and instructional history of Oakland University is the progressive elaboration of the basic patterns of its departmental and professional programs. From its beginnings, Oakland University curricula embraced the liberal arts and sciences, business administration, teacher edu-

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cation, and engineering. As the years pass, however, more sophisticated mechanisms of interdisciplinary communication change the configurations and goals of traditional specialization. In the University's African, Asian, Chinese, Latin American, Slavic, and other area studies, in linguistics, in premedical studies, in elementary education, in social studies, in management, in teacher education generally, in certain fields of engineering, in many subject disciplines, and in various courses offered by the inner colleges, such stimulating cross-fertilization is taking place. Reciprocal enrichments of disciplines lending themselves to the processes of sharing, exchange, concentration, amalgamation, and regeneration are characteristic of study at Oakland University now. Tomorrow new perspectives and new knowledge accruing from these innovative programs will lead to instructional means and to research findings now unforeseen.

Also characteristic of these forward-looking modes of learning are the University's diversified, optional, off-campus study programs. Six recent overseas study programs have given students the experience of in-depth learning in Mexico, Hong Kong, and several countries of western Europe. New College, moreover, requires of all its students a one-semester field term conducive to study of contemporary society at first hand through salaried or volunteer work in off-campus communities. Thirdly, the University extends to all students in good standing the option of individualized programs of independent off-campus study related to their academic courses.

The involvement of the University in the larger community is also identifiable in its programs, activities, and financial assistance designed to equalize educational opportunities. Students of the University volunteer, for example, through the Pontiac-Oakland Educational Assistance Team, to serve as tutors and friends for children of several elementary schools in Pontiac. During the summer months other projects offer help to pre-college students in the form of intensive academic skill development, cultural enrichment activities, orientation, and counseling. Through its new and expanding Urban Affairs program the University is moving to diversify and to broaden its commitments to the community. In both the Short Term Teacher Training Program and the Pontiac Urban Corps Program the University seeks to develop teachers who can cope effectively with the special educational problems of inner-city children. The School of Education is also planning to involve itself in an educational program suited to the special needs of rural poverty areas.

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Since 1963 Oakland University has also matured by widening the scope of its cultural influence in the realm of the performing arts. The University seeks to make a significant contribution both in the sponsorship of professional performance and in the education of professional artists. With massive support from its friends in the larger community, a first step toward this goal was taken in the summer of 1964, with the opening season of the Meadow Brook Music Festival. Housed on the campus in the newly built Howard C. Baldwin Memorial Pavilion, the Festival then presented the Detroit Symphony Orchestra in four weeks of concerts. Now internationally recognized, the Festival brings distinguished artists and ensembles to a season of nine weeks of orchestral concerts, ballet, jazz, and folk music. In 1967 the resident company of professional actors of the Meadow Brook Theatre opened its first annual season to great critical acclaim. With these two major beginnings, both warmly supported in the region, the University moved impressively towards the creation of a nationally prominent center for the performing arts.

Inversely, the effect of these activities within the University community of learning was generative of new studies in music and drama in the School of Performing Arts. In 1965 summer music institutes in choral, vocal, orchestral, and chamber music were initiated for the professional musician. For five years these institutes successfully pioneered unique concepts in summer instruction. The School, now reformulating its program in music, will adapt the achievement of these institutes to new formats and new goals. In 1967 the Academy of Dramatic Art was founded to give an intensive two-year professional training in techniques of acting.

In its first decade Oakland University has thus become a community of learning and a cultural force of a complex kind. It affects the larger community in southeastern Michigan not only through its credit programs, its service activities, and its performing arts events, but also, since its founding, through the highly diversified non-credit courses, conferences, and projects of the Division of Continuing Education and its subsidiary agencies, the Continuum Center for Women and the Alumni Relations Department. Members of the larger community, responding to these multiple influences, have in turn given creative and substantial support to the University through such organizations as the Oakland University Foundation and its Scholarship Committee, the Community Leadership Committee for the Meadow Brook Theatre, the Meadow Brook Festival Committee, the Friends of

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Oakland, the Friends of Kresge Library, and the Oakland University Alumni Association. Oakland University's brief history thus attests that while its primary concern is the creation and continuance of an effective community of learning, the community involved has no narrow bounds and the learning takes many forms.

To celebrate its tenth anniversary, the University initiated a year-long seminar on questions of appropriate ends and means for universities in our time as they respond to multiple pressures for change. From lectures, conferences, and courses addressed to these questions the University hopes to derive procedural modes, structural models, and relevant evaluations to guide and inform its own evolution and change during its second decade.

GOVERNANCE

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

ACCREDITATION AND AFFILIATIONS

The degree programs of Oakland University participated from its founding in the full accreditation status of the programs of Michigan State University. All baccalaureate programs of Oakland University were separately accredited by the North Central Association of Colleges and Secondary Schools in August, 1966. Preliminary accreditation was granted by the Association in 1967 for master's level programs leading to the degrees of Master of Arts, Master of Arts in Teaching, and Master of Science. Accreditation has been given to the program of the Department of Chemistry by the American Chemical Society. The undergraduate program of the School of Engineering has been accredited by the Engineers' Council for Professional Development.

The University is an institutional member of the following associations:

The American Association of Colleges for Teacher Education
The American Council on Education
Institute of International Education, Incorporated
Latin American Scholarship Program of American Universities

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The appropriate departments of the College of Arts and Sciences are institutional members of the following associations:

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

CENTRALIZED AND SPECIALIZED RESEARCH FACILITIES

THE COMPUTING AND DATA PROCESSING CENTER

The Computing and Data Processing Center is a centralized facility that supports research and educational programs and projects at Oakland University by supplying equipment, documentation, and consulting personnel for the computative, simulative, pedagogical, and instrument-control applications of the faculty and students of all disciplines. It provides a conducive computer-oriented environment in which students can explore and complete investigative, communicative, and computative assignments and in which faculty may draw on advisory and demonstration services for their courses of instruction. The Center is located on the second floor of Dodge Hall of Engineering in especially designed quarters having full software facilities for faculty and students. It operates an IBM 360/40 computer with peripheral equipment including high-speed printer, tape drives, and disc memory units.

THE LIBRARY

Most Oakland University library collections and services are centralized in Kresge Library, an open-stack facility. The Library presently contains approximately 190,000 books and related library materials, 115,000 units in microform, and 5,000 recordings on disc or tape. The development of collections has been carefully planned to support undergraduate curricula of high quality. Now under way is a drive to build research strength for eleven graduate programs. The Matilda R. Wilson Memorial Collection of reference and bibliographic works, funded by student gifts, constitutes a major addition to library holdings and affords a substantial research facility for faculty and students. Among other special collections recently initiated is the Martin Luther King, Jr. Memorial Collection of materials related to black culture in America.

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The library offers a variety of services to the user. Service points include: the listening center, a versatile audio system; a microform reading room; the documents room, which houses archives and government publications and is a partial depository for documents issued by the United States government and by the State of Michigan; the science area, a concentration of monographs, indexes, periodicals, and abstracts in this broad subject field; a general reference department; and the circulation department, which has an automated circulation system. A specialized collection of materials on music, theatre, and the dance is located in the Performing Arts Building.

OTHER CENTRALIZED AND SPECIALIZED RESEARCH FACILITIES

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

CAMPUS BUILDINGS

North Foundation Hall (1959)

Gift of Mr. and Mrs. Alfred G. Wilson. Administrative offices; University services; classrooms; Office of the President; Offices of the Vice Presidents for Academic Affairs, for Business Affairs, for Public Affairs; Offices of the Assistant Presidents for Administration and for Urban Affairs; Office of the Provost; Office of the Dean, School of Economics and Management; faculty offices (Economics and Management); Office of the Registrar; Office of University Relations; Personnel Office.

South Foundation Hall (1959)

Gift of Mr. and Mrs. Alfred G. Wilson. Classrooms; faculty offices (Classical Languages and Literatures, Linguistics, Speech, Division of Continuing Education).

Oakland Center (1959)

Self-liquidating funds. Offices for Commuter and Campus Programs; University Book Center and Gift Shop; Pickwick Games Area; Charlie Brown's Information Desk; scheduling office; food

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services; meeting, banquet, and conference facilities; lounges; cashier; laundry and dry cleaners; barber shop.

Kresge Library (1961)

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

John Hannah Hall of Science (1961)

Funds appropriated by the State of Michigan. Classrooms; laboratories; University Instrument and Electronics Shops; faculty offices (Chemistry, Mathematics, Physics, Psychology).

Sports and Recreation Building (1963)

Self-liquidating funds. Athletic offices; gymnasium; swimming pool; handball and squash courts.

Charles F. Kettering Magnetics Laboratory (1963)

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

Howard C. Baldwin Memorial Pavilion (1964)

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

Lulu B. Wilson Memorial Concert Shell (1964)

Gift of Lulu B. Wilson Trust. Acoustical shell at the Baldwin Pavilion.

Trumbull Terrace (1965)

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

Matilda R. Wilson Hall (1966)

Funds appropriated by the State of Michigan. Classrooms; language laboratory; Meadow Brook Theatre; University Art Gallery; Admissions, Housing, and Placement Offices; Office of the Vice President for Student Affairs and the Dean of Students; Office of the Assistant Vice President for Student Affairs; Office of the Dean for Resource Services; Office of the Dean of Freshmen; Advising and Orientation Offices; Office of the Dean for Student Special Services; faculty offices (Art, English, Modern Languages and Literatures, Philosophy).

Dodge Hall of Engineering (1968)

Funds appropriated by the State of Michigan and federal grants. Classrooms, laboratories, research facilities; Computing and Data Processing Center; Institute of Biological Sciences; Office of Research Services; Office of the Dean, School of Engineering; Office of the

OAKLAND UNIVERSITY

Dean of Graduate Study; Office of the Dean, Summer School; faculty offices (Allport College, Area Studies, Biological Sciences, Engineering, Political Science).

Graham Health Center (1968)

Self-liquidating funds. Health offices and services.

Performing Arts Building (1970)

Funds appropriated by the State of Michigan and a federal grant. Classrooms, choral rooms, band room, Performing Arts Library, Studio Theatre, recital hall; Office of Psychological Services; Office of the Dean, College of Arts and Sciences; Office of the Dean, School of Education; Office of the Associate Dean, School of Performing Arts; faculty offices (Academy of Dramatic Art, Education, History, Music, Sociology and Anthropology).

Meadow Brook Hall

Gift of Mr. and Mrs. Alfred G. Wilson.

Public Safety Building

Public safety functions.

RESIDENCE HALLS

Fitzgerald House (1962)

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

Anibal House (1962)

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

Pryale House (1963)

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

Hill House (1964)

Gift of Mr. O. E. Hunt.

Van Wagoner Hall (1965)

Self-liquidating funds.

Vandenberg Hall (1966)

Self-liquidating funds. Classrooms; faculty offices (Charter College, New College).

Hamlin Hall (1968)

Self-liquidating funds. Classrooms.

UNIVERSITY CURRICULA

DEGREE PROGRAMS:

UNDERGRADUATE CURRICULA

The College of Arts and Sciences offers programs of instruction leading to the degrees of Bachelor of Arts and Bachelor of Science in a wide range of departmental and interdepartmental programs in the humanities, social sciences, mathematics, and natural sciences. These programs also provide for specialization in teacher education and premedical studies. For further information, consult pp. 37-208 of this catalog.

The School of Economics and Management offers a program in management leading to the degree of Bachelor of Science. The economics faculty of the School directs the liberal arts program in economics leading to the degree of Bachelor of Arts in the College of Arts and Sciences. For further information, consult pp. 212-27 of this catalog.

The School of Engineering offers programs of instruction leading to the degree of Bachelor of Science in engineering. For complete information on the engineering major, consult pp. 249-65 of this catalog.

DEGREE PROGRAMS:

GRADUATE CURRICULA

The College of Arts and Sciences offers programs of instruction leading to the degree of Master of Arts in the fields of English, mathematics, and psychology, and programs of instruction leading to the degree of Master of Science in the fields of chemistry and physics. For further information, consult p. 209 of this catalog and the *Graduate Bulletin*.

The College of Arts and Sciences and the School of Education jointly offer programs of instruction leading to the degree of Master of Arts in Teaching in the fields of English and mathematics. For further information, consult pp. 209 and 238 of this catalog and the *Graduate Bulletin*.

The School of Education offers programs of instruction leading to the degree of Master of Arts in Teaching in the fields of ele-

UNIVERSITY CURRICULA

mentary education, reading instruction, and special education. For further information, consult p. 238 of this catalog and the *Graduate Bulletin*.

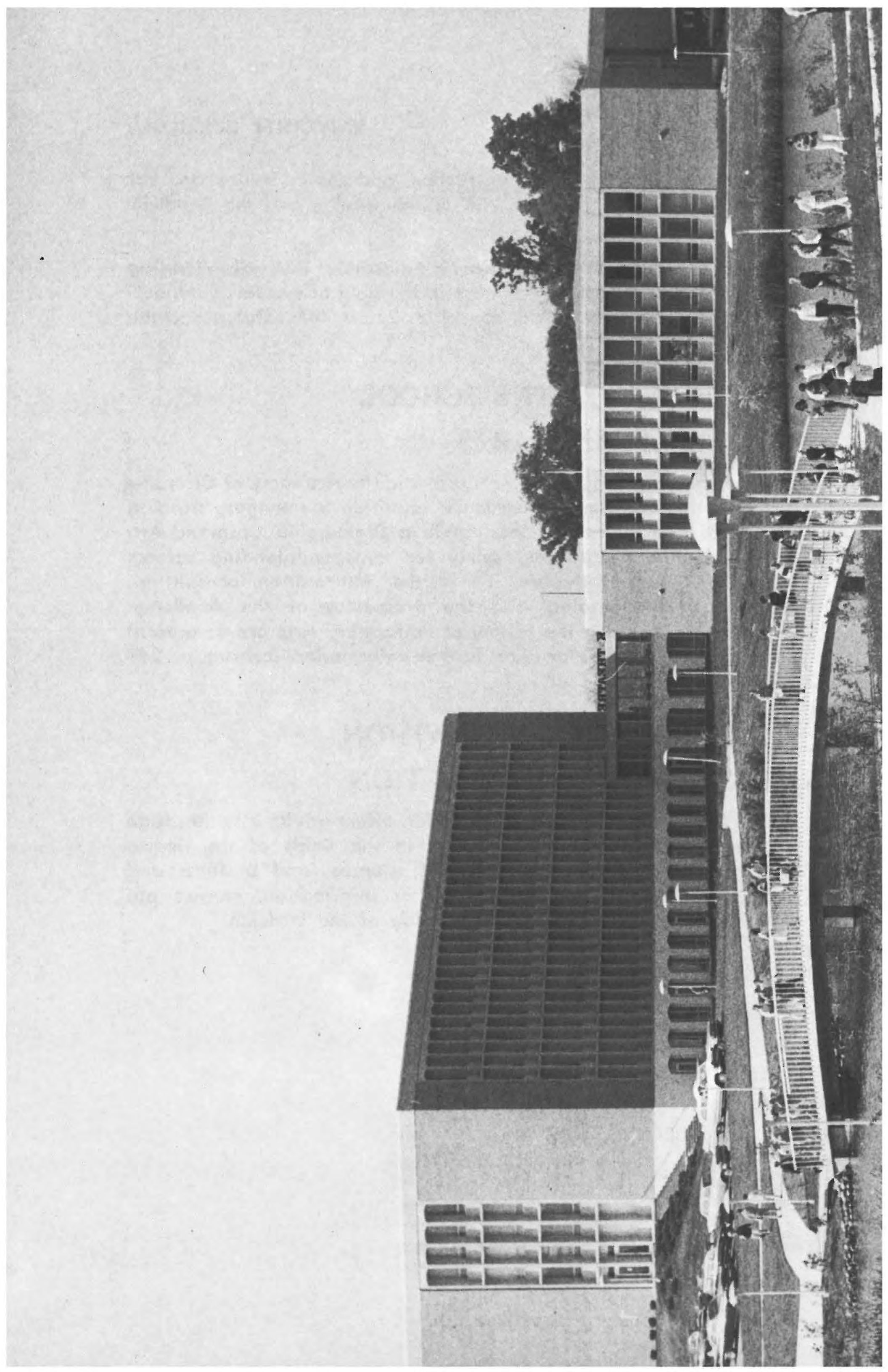
The School of Engineering offers a program of instruction leading to the degree of Master of Science in the field of systems engineering. For further information, consult p. 265 of this catalog and the *Graduate Bulletin*.

CURRICULA OF THE SCHOOL OF PERFORMING ARTS

The School of Performing Arts offers in the Academy of Dramatic Art a credit program of instruction requiring a minimum training period of two years and leading to a Diploma in Dramatic Art. The curriculum is designed solely for students intending careers in the professional theatre. For further information, consult pp. 270-71 of this catalog and the prospectus of the Academy. Programs in music in the School of Performing Arts are at present in a phase of transition. For further information, consult p. 269 of this catalog.

CURRICULA OF THE DIVISION OF CONTINUING EDUCATION

The Division of Continuing Education offers adults a wide range of non-credit courses of instruction in the fields of the liberal arts and sciences, applied arts and sciences, and business and professional development. For further information, consult pp. 277-79 of this catalog and the catalog of the Division.



COLLEGE OF ARTS AND SCIENCES

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

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ARTS AND SCIENCES

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M.A., Wheaton College; College of Arts and Sciences
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ARTS AND SCIENCES

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ARTS AND SCIENCES

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B.F.A., University of Tokyo Art Gallery Curator

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M.A., Syracuse University; Ph.D., Syracuse University

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ARTS AND SCIENCES

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Ph.D., University of Chicago; C.P.A. (Illinois)

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M.S., Purdue University; Ph.D., Purdue University

AVIGDOR ZAROMP Assistant Professor of Mathematics
B.A., Hebrew University; M.A., Hebrew University;
Ph.D., University of Pennsylvania

COMMITTEES

STANDING COMMITTEES OF THE COLLEGE OF ARTS AND SCIENCES

Executive Committee

George T. Matthews, Chairman
John L. Beardman
Peter J. Bertocci
Renate S. Gerulaitis

Robert C. Howes
David W. Mascitelli
James H. McKay
Norman Susskind

ARTS AND SCIENCES

The Committee meets regularly during the Fall and Winter Semesters on Tuesdays from three to five p.m. in the Office of the Dean, 207 Performing Arts Building.

Committee on Academic Advising

Fred W. Smith, Chairman (ex officio)

Harvey J. Arnold

Peter Bertocci

P. Michael Brakke

John Cowlshaw

Doreen Abraham (student member)

Laurence Blank (student member)

Steven Jakob (student member)

Anne Marie Wagner (student member)

The Committee meets periodically during the Fall and Winter Semesters.

Committee on Instruction

Robert E. Simmons, Chairman

George T. Matthews (ex officio)

Lowell C. Ruggles (ex officio)

Peter G. Evarts

David W. Daniels

Joel W. Russell

Carl R. Vann

The Committee meets regularly during the Fall and Winter Semesters on Thursdays from two to four p.m. in the Office of the Dean, 207 Performing Arts Building.

Elections Committee

Joel W. Russell, Chairman

Robert N. Blockovich

STANDING COMMITTEE OF THE FACULTY OF ARTS AND SCIENCES

Committee on Appointments and Promotions

George T. Matthews, Chairman

Charles W. Akers

John B. Cameron

Robert C. Howes

G. Philip Johnson

Robert E. Simmons

Norman Susskind

The Committee meets periodically during the Fall and Winter Semesters in the Office of the Dean, 207 Performing Arts Building.

UNDERGRADUATE CURRICULUM IN ARTS AND SCIENCES

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

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

I. The Residence Requirement

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

- A. Have completed 124 credits.
- B. Have completed at least 32 of these credits at Oakland University, of which at least 16 credits must be in his or her elected major.
- C. Be registered at Oakland University for at least 8 credits during the semester in which the degree is conferred.
- D. Have a cumulative grade point average of at least 2.0.
(Exceptions to the residence requirement may be obtained only by successful petition to the dean of the school or college in which the student is enrolled.)

II. The General Education Requirement

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

- A. Have completed 36 credits or more (as specified by his or her chosen major) in the University Course Program or in equivalent programs in Allport College, Charter College, or New College.
- B. Have completed at least 8 elective credits.
- C. Have fulfilled the requirements for Michigan Public Law 229 by taking either the University Course in political science (UC 052) or any combination of two other courses from the University Course social science sequence (UC 054, UC 056, UC 058) or from the American history sequence (HST 214, 215). (Allport College, Charter College, or New College equivalents are accepted in lieu of the University Courses in political or social science.) (For further details concerning the general education requirements, see pp. 38-54.)

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III. Requirement of an Independent Concentration or an Elected Major

In order to graduate, the student must have fulfilled all requirements for an independent concentration or an elected major. (For details concerning the independent concentration see pp. 54-56.) The student electing a major must have at least a 2.0 average in the courses required for the major. (For further detail concerning the major, see pp. 56-58 and entries under particular departments.)

THE INSTRUCTIONAL PROGRAM

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

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

I. General Education

(See also paragraph II of the General Degree Requirements.) There are four ways currently available for the student fully or partially to satisfy this general degree requirement: by means of the University Course Program, by enrollment in Allport College, by enrollment in Charter College, or by enrollment in New College.

A. THE UNIVERSITY COURSE PROGRAM

The University Course Program is designed to assure all undergraduates an extensive experience of the principal intellectual elements of a liberal and unspecialized education in arts, in letters, in the social sciences, and in the natural sciences and mathematics. Study in the Program occupies approximately one-third (with some variance depending upon the student's major) of the student's total curricular commitment. Courses in the Program normally are spaced throughout the student's entire undergraduate curriculum. The University Course Program consists in three prescribed divisions: (1) Freshman Exploratories, (2) Distribution Requirements, (3) Senior Colloquia. Brief explanations of these divisions follow. The credits required in each division are noted, and the specific courses which may be used to satisfy the requirement in each division are listed.

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1. Freshman Exploratories*

(8 credits)

Freshman Exploratories are taught by faculty representing all disciplines in the College of Arts and Science and by members of the faculties of the School of Education and the School of Engineering, under the chairmanship of Mrs. Joan Rosen of the Department of English. Classes are limited in size to enable meaningful discussion of ideas and to encourage a close relationship between students and instructors. Designed to permit an orderly but autonomous examination of a subject, a topic, or an area of intellectual concern chosen freely by the instructor, the Freshman Exploratories also provide the student with continuous, systematic, and mandatory practice in the writing of English prose. Successful completion of the Freshman Exploratory requirement satisfies the University's writing competency requirement. Each student, unless he or she has transferred equivalent credits from another institution (usually freshmen English composition), should take one and only one Freshman Exploratory (UC 01A-F or UC 02A-F or UC 03A-F) in each of his or her first two semesters, chosen from the following groups (no two may be chosen from the same group): literature, Western history and philosophy, fine arts, man and contemporary society, area studies, and science and mathematics. Any student who has not satisfactorily completed two Exploratories in his or her first three semesters may be declared ineligible to continue as an enrolled student by action of the Committee on Academic Standing. No student may receive credit for more than two Exploratories, including equivalent credits for courses taken at other institutions. Students enrolling in UC 03A-F will receive 8 credits for this one intensive Exploratory course. For further details concerning UC 03A-F, consult the chairman of the Exploratory Program.

2. Distribution Requirements

The Distribution Requirements are designed to provide all undergraduates with minimal experience of the fields of literature; of Western history and philosophy; of the fine arts (art, music, and theatre); of the social sciences (anthropology, economics, political science, psychology, sociology); of the natural sciences and mathematics; and of symbolic systems. In addition the Distribution Requirements prescribe study of at least one area studies course (Africa, China, India, or Latin America). Courses specified as satisfying the Distribution Requirements are generally taught in lecture

*The Exploratory requirement is under study and is subject to revision. For information, consult the Advising Office, the Admissions Office, or the chairman of the Freshman Exploratory Program.

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format. These courses should be so scheduled in the student's instructional program that some work taken to satisfy the requirements is in progress during each year of the student's residence. Students majoring in biology, chemistry, and physics; secondary teaching majors in mathematics and music; and all secondary teaching majors with minors in either history or English may use Freshman Exploratories and the Senior Colloquium partially to satisfy these Distribution Requirements. The pattern of credits established for the Distribution Requirements is outlined below, and those courses which may be offered to satisfy particular elements of the requirements are listed. For descriptions of those courses entitled University Courses (e.g., UC 018) see pp. 43-45 and for those with departmental titles (e.g., ENG 105) see listings in the departments concerned.

(a) Literature (4 credits)

All students must complete 4 credits in literature in any one of the following courses: UC 018, ENG 105, ENG 111, ENG 140, or any course in foreign languages numbered 271 or higher. Scheduling of these courses depends upon the programs of the different departmental majors, but normally they should be taken in the freshman or sophomore year.

(b) Western History and Philosophy (4 credits)

All students must complete 4 credits in Western history or philosophy in any one of the following courses: UC 036, UC 037, ED 244, HST 141 or 142, or PS 272. Scheduling of these courses depends upon the programs of the different departmental majors, but normally they should be taken in the freshman or sophomore year.

(c) Fine Arts (4 or 8 credits)

All students must complete at least 4 credits in either art, music, or theatre in any one of the following courses: UC 045 (Theatre), UC 047 (Art), or UC 049 (Music); majors in elementary education electing art should take ART 147 rather than UC 047 (Art); those electing music should take MUS 149 rather than UC 049 (Music). Students who elect to take only 8 credits in science and mathematics (see below) must take 8 credits in fine arts in two different fields, that is, in art and music, in art and theatre, or in music and theatre.

(d) Social Sciences (8 credits)

All students must complete 8 credits in the social sciences by choosing one course in each of two different disciplines. Students may satisfy this Distribution Requirement by choosing two courses, each from a different group, as follows: UC 052 (Introduction

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to American Politics) or PS 131 (Foreign Political Systems); UC 054 (Introduction to Social Psychology) or PSY 146 (Foundations of Contemporary Psychology); UC 056 (Introduction to Economics); UC 058 (Introduction to Sociology) or AN 102 (Man in Culture and Society); ENV 151 (Introduction to Environmental Studies).

(e) Area Studies (4 credits)

Some Distribution Requirements concentrate on the fundamental principles, historical development, and major achievements of European and North American civilization. Others emphasize the processes by which the modern world functions. Courses in area studies complement these courses by turning the student's attention to other major civilizations, African, Chinese, Indian, and Latin American, that differ substantially from European and North American civilization and are making their own unique contributions to the modern world. Accordingly, all students must complete 4 credits in one of the following area studies courses: UC 062 (China), UC 064 (Africa), UC 066 (India), or UC 068 (Latin America). Completion of one Freshman Exploratory is a prerequisite for admission to these courses.

(f) Science and Mathematics (8 or 12 credits)

To satisfy this Distribution Requirement, every student must complete a minimum of 4 credits in science. All students must complete at least 8 credits in science and mathematics. Consistent with these two stipulations, this requirement may be fulfilled by any two of the following courses: UC 085 (Mathematics), UC 086, UC 087, UC 088, or UC 089 (Sciences), or EGR 101, ENV 181, PHL 370, or any two departmental courses in science, or any one departmental course in mathematics. Students who elect to take only 8 credits in science and mathematics must take 8 credits in fine arts (see above) in two different fields.

(g) Symbolic Systems (8 credits)

All students are expected to gain some familiarity with the structure and use of a system of symbols other than the English language. This requirement may be satisfied by earning 8 credits in any of the following ways (or by demonstrating equivalent proficiency by examination): completion of a second-semester foreign language course (except the 285-286 series); two 4-credit courses in computer programming (EGR 182-183); or any 8-credit combination of courses chosen from linguistics (all courses), mathematics (all courses), and PHL 102, 370, or 375. (Students may combine linguistics and mathematics, linguistics and philosophy, or mathematics and philosophy to satisfy this requirement.) Each student

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should consult a department or program adviser to be sure that the option chosen under the provisions of the symbolic systems requirement will be in accord with the requirements of the major program elected by the student.

3. Senior Colloquia

(4 credits)

These Colloquia are designed to provide an opportunity for senior students to study outside their major fields in any one of the last two semesters of their residence. The Colloquia (UC 09A-F) are offered by faculty drawn from all disciplines under the chairmanship of Professor James Davis of the Department of Chemistry. Emphasizing discussion, reading, research, and writing, the Colloquia deal with significant cross-disciplinary issues of broad import.

B. UNIVERSITY COURSE DESCRIPTIONS

1. Freshman Exploratories

Exploratories are offered in the following groups, and the student must complete two with no two in the same group. The student should complete the Exploratory requirement in his or her first two semesters of residence and must complete them in the first three semesters or risk ineligibility for continuance as an enrolled student. (See p. 39.) Continuous and systematic practice in writing, under the supervision of the instructor, is an integral part of the work of each Exploratory. About 5,000 words are assigned per semester, spread over five to eight separate written assignments. On the judgment of the instructor, students enrolled in an Exploratory who experience special problems in writing may be assigned to the University Writing Center (see p. 307) for professional help. Such students are automatically enrolled in ENG 009, Aids to Expository Writing, in which "S" (Satisfactory) or "N" (No grade) grades are awarded. The student works in the Center for varying lengths of time while continuing in his or her Exploratory. Grades awarded in the Exploratory reflect the grades awarded in ENG 009.

UC 01A, UC 02A, UC 03A Literature

Study of a variety of materials to define the unique interpretation of human experience which literature represents, the relation of literature to other endeavors, and the various forms of and approaches to literature and the use of language. Staff is drawn primarily from the faculties of English and modern languages.

UC 01B, UC 02B, UC 03B Western History and Philosophy

Studies from a variety of viewpoints of the nature and development of significant

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social institutions and ideas of the Western world, both ancient and modern, with attention to their relevance for the present. Staff is drawn primarily from the faculties of history and philosophy.

UC 01C, UC 02C, UC 03C Fine Arts

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

UC 01D, UC 02D, UC 03D Man and Contemporary Society (Social Sciences)

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

UC 01E, UC 02E, UC 03E Area Studies

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

UC 01F, UC 02F, UC 03F Science and Mathematics

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

2. Distribution Requirements

The following University Courses are required or recommended for satisfaction of the Distribution Requirements. For those departmental courses which may be taken in lieu of University Courses, see pp. 40-41.

LITERATURE

UC 018 Western Literature

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

WESTERN HISTORY AND PHILOSOPHY

UC 036 Western Institutions

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

UC 037 Western Philosophy

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

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FINE ARTS

UC 045 Introduction to Theatre

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

UC 047 Introduction to Art

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

UC 049 Introduction to Music

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

SOCIAL SCIENCES

UC 052 Introduction to American Politics

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

UC 054 Introduction to Social Psychology

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

UC 056 Introduction to Economics

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

UC 058 Introduction to Sociology

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

AREA STUDIES

UC 062 Introduction to China

A study of the traditional civilization and modern development of China. Topics include

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history, philosophy and religion, literature and the arts, government, and social organization. Enrollment limited to those who have completed at least one Freshman Exploratory.

UC 064 Introduction to Africa

An introduction to the geography and ecology of Africa and the history and cultures of African peoples. Attention will be directed also to social organization; economic, political, and religious systems; and problems of social change. Enrollment limited to those who have completed at least one Freshman Exploratory.

UC 066 Introduction to India

A study of the traditional civilization and modern development of the Indian sub-continent. Topics include philosophy and religion, literature and the arts, history, political structure, and social organization. Enrollment limited to those who have completed at least one Freshman Exploratory.

UC 068 Introduction to Latin America

A study of the traditional and modern forces in Latin America, the cultures of Indian, European, and African peoples, and a survey of contemporary social and political problems of the area. Enrollment limited to those who have completed at least one Freshman Exploratory.

SCIENCE AND MATHEMATICS

UC 085 Mathematics

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

UC 086, UC 087, UC 088, UC 089 Science

Courses for non-science majors which provide knowledge and appreciation of science through readings, discussions, demonstrations, and laboratory work.

UC 086

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

UC 087 and UC 088

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

UC 089

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

SYMBOLIC SYSTEMS

For description of courses available to satisfy this requirement consult departmental

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entries under classics, engineering, linguistics, mathematics, modern languages, and philosophy. (See also Distribution Requirements, pp. 41-42, for the list of applicable courses.)

3. Senior Colloquia

Each student must take a Senior Colloquium in one of his or her last two semesters in residence. This course forms the capstone of the student's education *outside* his or her major field. Each section of the course will study intensively a broad problem of perennial or contemporary concern; students will be expected to contribute to the discussion the insights of whatever disciplines they have studied and thus will gain an idea of their broader relevance. *If the topic of a section should fall within one of the academic departmental fields, students who have majored in that department will be excluded from that section.* Such exclusions will be indicated by the instructor in the course description which should be available before registration for each semester.

UC 09A Literature

Studies of broad topics in literature and of the relation between literature and other human activities.

UC 09B Western History and Philosophy

Studies of contemporary issues in their historical or philosophical dimensions (or both), designed to show the value of these broader perspectives.

UC 09C Fine Arts

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

UC 09D Man and Contemporary Society (Social Sciences)

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

UC 09E Area Studies

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

UC 09F Science and Mathematics

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

4. University Forum

Students may take one or two 2-credit courses designated University Forum as elective credits, or they may complete two 2-credit courses designated University Forum as an alternative to taking the Senior Colloquium. Each time the University Forum is offered it

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will be devoted to the study of a new subject. The course may be repeated for credit only once for a total of 4 credits.

UC 04 University Forum (2 credits)

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

C. ALLPORT COLLEGE PROGRAM

Chairman: Carl R. Vann, Professor of Political Science

Acting Chairman: Philip Singer, Professor of Anthropology

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

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

The Allport behavioral science program is not designed to be a major in itself but is to be a concomitant of a departmental major. The College will attempt to use various disciplines to relate: culture and personality; language, culture, and behavior; various modes of institutional behavior (e.g., political, bureaucratic, family, community, national, and international); science and technology and their impact on the human organism and organization; mathematics and statistics as logical systems and their interconnections with the institutional and scientific enterprises.

The students enrolled in the Allport College program will be expected to meet all the regular academic requirements of the College of Arts and Sciences (see pp. 37-38), but they will be able to fulfill many of these requirements by taking courses especially planned and taught by the Allport College faculty. In the freshman year each student will be required to enroll in a two-semester Introduction to Behavioral Sciences course (AC 101-102) and in freshman Preceptorial courses (AC 103, 104) given by Allport College faculty members on topics relating to the behavioral sciences.

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Sophomore students will take a University Course under the direction of the College but with the cooperation of the departments. The College anticipates that when these courses are offered they will be developed in close relationship to a program of guest scholars. These scholars will visit the campus for periods of several days during which they will have extensive contacts with students and faculty.

The Allport College experience in the junior year will be a directed research project or other form of off-campus study. These programs are currently in the process of planning and development. In the senior year a Colloquium course will be offered. This course will be given by a member of the College faculty with whom students did not study in either of their freshman Preceptorials.

Distinctive Features of the Allport College Program

This academic program is especially designed to provide the students with an experience relevant to the contemporary world.

The use of small classes and tutorial experiences is coupled with large-group activities. Among the group events envisaged are traditional activities such as lectures and debates, as well as somewhat unusual cultural demonstrations and participatory activities. These "salon seminars" will be organized by the faculty of the College with students and with faculty from other segments of the University and with members of the outside community. The seminars will also be extended over a period of time to include experiences with persons from other countries, as well as with the literature and cultural patterns of many areas.

Students in the College will be afforded opportunities for off-campus applied research.

Upon completion of the Introduction to Behavioral Sciences (AC 101-102), students of the College may, with the cooperation of the academic departments involved, proceed directly to advanced course work.

All incoming first year students may apply for admission to Allport College. Students planning on majors with specially detailed requirements should consult with their advisers; the College is willing to discuss adjustments. Decisions on admission will be made prior to the Fall Semester. Enrollment is limited.

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COURSE OFFERINGS

AC 101-102 Introduction to Behavioral Sciences **(4 credits each)**

An introduction to the methods, data, and insights of the behavioral sciences with emphasis on anthropological, sociological, psychological, ethological, and political research. The implications and relevance of these basic and applied studies for the behavior of individuals, groups, and nations are examined. (This is a two-semester course. It is required of all students in Allport College and meets the social sciences Distribution Requirement. AC 101-102 is also open to any student at Oakland University on an elective basis.)

AC 103, 104 Preceptorial **(4 credits each)**

Students in Allport College meet the freshman writing requirement through these courses. Preceptorial sections are taught on a seminar-discussion basis, and students are required to choose preceptorials taught by persons representing two different disciplines.

AC 202 Research Techniques and the Behavioral Sciences **(4 credits)**

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

AC 205 Evaluation of Music **(4 credits)**

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

Prerequisite: UC 049.

AC 300 Applied Research in the Behavioral Sciences **(4, 8, 12, or 16 credits)**

A semester of independent study and applied research undertaken away from the University. Projects will be developed in cooperation with and supervised by Allport faculty within the framework of methodology and explanation in the behavioral sciences.

Prerequisites: AC 101-102, or permission of the instructor.

AC 499 Senior Colloquium **(4 credits)**

D. CHARTER COLLEGE PROGRAM

Chairman: Alfred Lessing, Associate Professor of Philosophy

Charter College was formed in 1965 in an effort to retain some of the advantages of the small college within the structure of a large university. We, the members of the Charter College community, believe that in a smaller, more intimate social-academic context students and faculty can work together to produce a program which allows a self-selected, but representative, group of university students to integrate the various aspects of their college life—academic, personal, residential, extracurricular—while allowing

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individuals the freedom to develop their unique personalities and to grow in areas of personal interest. The College welcomes innovative teaching methods and student participation in the making and implementing of College policies. Charter College courses, which grow out of faculty and student interest, are general education courses which aim to be interdisciplinary, dealing with topics of academic, societal, and personal concern. We try to offer courses which students want to take and which particular faculty members are enthusiastic about teaching. The main focus of Charter College courses is not a particular area or subject matter, but rather the development of individual inquiry and judgment in dealing with concerns which may span or extend beyond traditional academic boundaries.

Charter students satisfy Oakland University's general education requirements by taking 40 credits in Charter College courses usually distributed over six to eight semesters. They choose a major or an independent concentration from the baccalaureate programs offered by Oakland University and meet the requirements (including the symbolic systems requirement) of their elected major or independent concentration in accordance with University regulations. Charter students are exempt from the University Course requirements, including Freshman Exploratories, Distribution Requirements, and Senior Colloquia. All Charter courses are graded "S" (Satisfactory) or "N" (No grade). Grading and competition are de-emphasized.

About one hundred freshmen are accepted into Charter College each year. The College is not in any sense an honors college. We welcome applications from University students from any background, with any high school grades, regardless of their intended majors or whether they are commuters or residents. Admission to the College is decided by a panel of faculty and students. Other than a reasonable balance between men and women, we aim simply at achieving a cross-section of Oakland University students with a wide range of interests and personalities who are interested in the educational aims and processes of Charter College. Classes are kept as small as basic University economics will allow. Because we believe that students are or ought to become responsible for their own education, we have a flexible program of independent study courses in which Charter students can work with a faculty member on an individual basis, pursuing an area of study of particular interest to them.

To help integrate the personal and academic programs, the Charter offices, classrooms, and lounge are on the first floor of Vandenberg Hall, the dormitory in which Charter resident students have

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their rooms in the west tower. Charter freshman commuter students will be asked to spend about a week in the Vandenberg "commuter rooms" set aside for this purpose so that they can feel a part of and at home in the activities and spirit of the Charter community that centers in dorm life.

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

COURSE OFFERINGS

Course offerings in Charter College vary from semester to semester according to the interest of its students and faculty. The particular courses to be offered during any semester are announced about a month before the end of the preceding semester. Detailed descriptions of each course to be offered are also made available at this time in the Charter College office so that Charter students may have adequate time and information to make course selections.

E. NEW COLLEGE PROGRAM

Chairman: Melvin Chernov, Professor of History

New College has been established on the conviction that a rigorous and systematic program of general education should complement a student's major. The College offers a four-year program (eight semesters) which occupies about half the student's time in

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the freshman and sophomore years, and one-fourth of it in the junior and senior years. The College program requires a total of 48 credit hours. In general, the New College courses in the first year emphasize the humanities; in the second, the study of society and in the third, the natural and behavioral sciences. The program of the senior year in the College comprises more individualized studies. This four-year program replaces the University Course Program required of other undergraduates. (See pp. 38-47.) A student enrolled in New College must satisfy the symbolic systems requirement. (See pp. 41-42.)

The New College program is available as an option to all students, whatever their contemplated major. Because of the College commitment to a solid core of general studies, however, it is not normally feasible for students in the College to complete in eight semesters the degree of Bachelor of Science in engineering or management or the degree of Bachelor of Arts in the sciences or music. The College will gladly undertake to discuss modifications with these and other departments or schools, but it can make no advance commitments in such cases. A student in any of these majors who is willing to attend an extra semester if necessary is, of course, welcome to enter the program of the College. Elementary education majors and students majoring in the sciences will be exempted from the College science courses scheduled for the third year, but these students will be expected to participate to a limited extent in planning these courses.

The freshman program consists of a two-semester course in intellectual and cultural history (NC 101, 102, 6 credits per term), and a two-semester Arts Workshop (NC 111, 112, 2 credits per term). The faculty for the former course, Studies in the History of Civilization, is chosen from scholars in the fields of European history, philosophy, literature, art history, and area studies in non-Western civilizations. They will pool their resources to examine in depth a few of the great writers in the history of Eastern and Western man. Lectures, small discussion classes, extensive reading, and frequent writing assignments make this course a rigorous introduction to the elements of a liberal education.

The sophomore program is devoted to the study of contemporary society, both in the classroom and at first hand. In the Fall or Winter Semester, each student will take a course (NC 201, 4 credits) introducing him or her to the study of American society: its major features, historical roots, and opportunities for planned social change. This course will provide an academic correlative for work in the following semester as students observe and study social be-

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havior in off-campus communities. During this field term (NC 202), each student will work on a project for which he or she will earn 12 credits. The College will help the student plan and execute a project which may involve salaried work, volunteer work, or an individualized program of study. NC 203 is a 4-credit course on Twentieth Century World Civilization designed for students who have returned from their field terms.

Juniors will take two one-semester courses in science (NC 301, 302, 4 credits each term), investigating its methods and significance through an examination of several fundamental problems. Materials will be chosen from the physical and biological sciences as well as from the behavioral sciences.

A number of options will be available for seniors, any one of which is required: an interdisciplinary seminar (NC 400), a project in a broad area outside the student's major field (NC 401), an oral examination (NC 402), and apprentice teaching in the College for selected students (NC 403).

Although any incoming freshman may apply for admission to New College, no more than one hundred will be accepted in any academic year. Decisions regarding admission will be made before students enroll for the Fall Semester.

COURSE OFFERINGS

NC 101, 102 Studies in the History of Civilization **(6 credits each term)**

A number of writers representative of various civilizations will be studied intensively, with the aim of deriving from their writings both an understanding of political, economic, and religious institutions and a related appreciation of literature, art, and philosophy. Required of all New College students. Sequence offered annually.

NC 111, 112 Arts Workshop **(2 credits each term)**

A two-term course designed to allow students to explore their potential for creativity under guidance but in a flexible environment. Does not demand previous experience. Sections currently stress movement, expression, and improvisation in music, theatre, and dance. Required of all New College students. Sequence offered annually.

NC 201 Man in Society **(4 credits)**

An introduction to American society as seen by a social scientist. Students will design a project which they will execute in their field term. Required of all New College students. Offered in the Fall and Winter Semesters.

NC 202 Field Term **(12 credits)**

A semester spent at work or study according to a plan approved by the Placement Office and the instructor of NC 201. Required of all New College students. Offered in the Fall and Winter Semesters.

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NC 203 Twentieth Century World Civilization (4 credits)

A course designed to allow students who have completed NC 202 to relate their experiences to important developments in contemporary society, in the U.S. and generally. Required of all New College students. Offered in the Fall Semester.

NC 211 Mime (2 credits)

An active examination of the techniques and styles of classical mime, dealing specifically with the spiritual preparation for mime and the practice of mask-making. Not a required course. Offered occasionally.

NC 212 Contemporary Dance (2 credits)

The emphasis in this course will be on learning modern dance and ballet techniques and developing these techniques into dance studies utilizing rhythm, space, and energy. Not a required course. Offered occasionally.

NC 301 Introduction to the Sciences of Man (4 credits)

Introduction to the procedures and conclusions of contemporary behavioral scientists, through a topic or topics selected by the instructor. Required of all New College students except elementary education majors and those majoring in science departments or engineering. Offered in the Fall Semester.

NC 302 Introduction to the Sciences of Nature (4 credits)

Introduction to the procedures and conclusions of contemporary natural scientists, through a topic or topics selected by the instructor. Required of all New College students except elementary education majors and those majoring in science departments or engineering. Offered in the Winter Semester.

NC 400 Senior Seminar (4 credits)

Discussion of a topic of general interest. Satisfies the senior requirement in the College. Offered in the Winter Semester.

NC 401 Independent Project (4 credits)

A research project on a topic of general interest outside the student's major field. Satisfies the senior requirement in the College. Offered in the Winter Semester.

NC 402 Oral Examination (4 credits)

An examination on a booklist of general interest to be read during the previous term. (Arrangements must consequently be made a semester in advance.) Satisfies the senior requirement in the College. Offered in the Winter Semester.

NC 403 Apprentice Teaching (4 credits)

Apprentice teaching in the College designed for students who plan to teach in colleges. New College approval is required at least a semester in advance. Satisfies the senior requirement in the College. Offered in the Winter Semester.

II. Independent Concentration.

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

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- A. That the credits in an independent concentration be not less than 40 nor more than 60, such credits to be in courses above the introductory level.
- B. That these 40 to 60 credits must be in an organized program of study exhibiting sufficient coherence and depth to warrant being offered in lieu of a standard concentration or major in partial fulfillment of the requirements for the Bachelor of Arts degree.
- C. That this program shall be developed in consultation with an adviser who has authority to recommend its approval by the Committee on Instruction and to attest to its satisfactory completion for graduation purposes.
- D. That the Committee on Instruction (or a duly constituted committee established for the purpose) approve all such programs (and subsequent modifications) and sponsor students in independent concentrations for the degree.
- E. That the Committee on Instruction be charged to develop procedures concerning independent concentrations.
- F. That students electing to offer an independent concentration in partial fulfillment of the requirements for the Bachelor of Arts degree must fulfill all requirements for the degree other than the requirement of an elected major.

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

Advisers for the academic year, 1971-1972, will be announced prior to fall registration.

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

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Committee on Instruction, which may approve, disapprove, or modify the proposal.

Students are encouraged to use the Fall Semester of 1971 to plan their programs in consultation with authorized advisers, and to present their programs to the Committee on Instruction by November 15 for action by the Committee prior to the beginning of the Winter Semester of 1972.

Only in exceptional cases will programs be acted upon at the beginning of the Fall Semester of 1971.

III. The Major

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

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

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

B. The College of Arts and Sciences offers secondary teaching majors under the auspices of the following departments. (For detailed information see material under each departmental entry and p. 233 of the section of this catalog devoted to the School of Education.)

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

C. Minors are not required by the General Degree Requirements for the degree of Bachelor of Arts. However, they are required of prospective secondary school teachers seeking certification by the Department of Education of the State of Michigan. Consequently, the following departments and interdepartmental groups make available minor programs for such students. (For more detailed information see material under each departmental entry and pp. 233-34 of the section of this catalog devoted to the School of Education.)

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

D. The College of Arts and Sciences offers an interdepartmental secondary teaching major under the auspices of the Committee on the Social Studies Program. This Committee also makes available a secondary teaching minor in social studies. (See pp. 202-3.)

E. The College offers an interdisciplinary major in elementary education under the Committee on Elementary Education. (For further information, see pp. 234-37 of the section of this catalog devoted to the School of Education.)

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

1. East Asian Studies (See pp. 195-97.)
2. Linguistics (See pp. 121-122.)
3. Premedical Studies (See p. 202.)
4. Slavic Studies (See pp. 199-200.)
5. South Asian Studies (See pp. 197-98.)

G. The College of Arts and Sciences through several departments, through New College, and through community service courses offers

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various programs for off-campus study. (See pp. 52-53 and pp. 204-6.)

H. The College offers limited work in speech (see p. 208), in geography (see p. 207), and in environmental studies (see p. 206).

I. The College offers work in science for elementary education majors. (See p. 207.)

MAJOR STANDING AND GENERAL REQUIREMENTS FOR MAJORS

I. Admission to Major Standing

A. A student must have completed 56 credits before he or she may formally be admitted to major standing.

B. It is the student's responsibility to apply to the appropriate department (or interdepartmental committee) for major standing at the end of the semester in which he or she completes 56 credits.

C. A student may be admitted to major standing if he or she has passed all courses prerequisite to the major with at least a 2.0 average.

D. A student who has completed 72 or more credits and does not have major standing is liable for dismissal by the Committee on Academic Standing.

II. Retention in Major Standing

A. Under normal circumstances, a student will retain major standing as long as he or she maintains a 2.0 average in those courses which the department has approved as constituting his or her major program.

B. If a student falls below a 2.0 average in approved major courses, he or she may be dropped from major standing by the department with the approval of the Dean of the College, with right of appeal to the Committee on Academic Standing.

MAJOR DEPARTMENTS OF INSTRUCTION AND COURSES

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

REGULATIONS GOVERNING COURSES

1. All courses are assigned four credits unless otherwise specified.
2. A course sequence joined by a hyphen (e.g., GRK 414-415) must be taken in the order indicated. The first course in such a sequence is regarded as a prerequisite to that following. A department has, however, the right to waive these and any other prerequisite course requirements.
3. Course numbers separated by commas (e.g., HST 214, 215) indicate related courses, which may be taken in any order. Departmental or program requirements may govern the order in certain cases, however.
4. University Courses and courses numbered 100 to 299 are introductory or intermediate undergraduate courses. Courses numbered 300 to 499 are advanced courses primarily for undergraduates. Courses numbered 500 and above are primarily for graduate students.
5. The Registrar reserves the right to cancel any course in which there is insufficient registration.

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DEPARTMENT OF ART

- Associate Professors: John L. Beardman (Art)
John B. Cameron (Art History)
(On leave 1971-72)
- Assistant Professors: Ülkü U. Bates (Art History) (Visiting)
P. Michael Brakke (Art)
Donald H. Dwyer (Art History)
Ralph F. Glenn (Art History)
Lawrence S. Rittenberg (Art)
Kiichi Usui (Art; Gallery Curator)
- Instructor: Charles E. Brownell, Jr. (Art History)

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

The Department strengthens its program of instruction by encouraging group or individual visits to the Detroit Institute of Arts and other public and private collections. It also presents a series of exhibits of contemporary, primitive, and traditional arts in the University Art Gallery in Wilson Hall. There is an annual Student Exhibition in the Art Gallery which shows the best works by art majors and other students.

Each year the Department selects several majors and minors in art to work as student assistants. Appointed on the basis of their personal responsibility and sound academic achievement, these assistants receive training and experience useful for future graduate specialization and career work.

The Department of Art offers programs of study leading to the degree of Bachelor of Arts with majors in history of art and in studio art. The Department of Art also offers a secondary teaching minor. (See below for details; a secondary teaching major is not offered in art.)

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Majors in the Department of Art may complete their general education requirement in the University Course Program or in Allport College, Charter College, or New College. Their choice should be made in consultation with their advisers.

Majors in disciplines other than art and students taking independent concentrations are encouraged to consider the taking of period or subject courses in history of art as corollary to upper-division offerings in their own fields of specialization, with the approval of their departmental advisers.

Requirements for the Liberal Arts Major in Art History

UC 047 (Introduction to Art) and ten departmental courses in art, including one in studio art, are required, making a total of 44 credits. (Additional courses in studio art will be counted as electives.) At least one art history course is to be taken from each of the following eight groups of periods, styles, or subjects:

- A. Non-Western (Oriental or Primitive)
- B. Ancient Near East; Greek and Roman
- C. Medieval; Byzantine
- D. Renaissance; Northern Renaissance
- E. Seventeenth Century; Eighteenth Century
- F. Nineteenth Century; Twentieth Century; Modern Architecture
- G. American; German; English
- H. Seminar in Art History (ART 480);
Special Problems in Art History (ART 491)

Necessary cognate courses for art history majors are: four semesters of German and two semesters of French (or vice versa); and at least one advanced course in the Department of History. Majors who intend to apply for admission to graduate school in art history should consult as soon as possible with one of the art historians, preferably at the beginning of the sophomore year.

Requirements for the Liberal Arts Major in Studio Art

Eleven courses in art (exclusive of UC 047) are required, making a total of 44 credits. Three of these courses must be in art history and eight in studio art. ART 226 must be completed before other studio courses may be taken. Of the three requisite art history courses, ART 381 (Twentieth Century Painting and Sculpture) must be taken first and must be completed before students enter ART 226. Upon completion of the first 300-level studio art course (326, 327, or 328), a portfolio of work to date must be submitted via the

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instructor to the studio faculty jury. Approval of this portfolio is a prerequisite to enrolling in any subsequent 300- or 400-level studio art course. Transfer students are admitted to the studio art program only by portfolio. It is emphasized that the major in studio art is a general one and that there are no separate majors in painting, printmaking, sculpture, or other concentrations. Therefore, at least one course must be taken in each of the following areas:

- A. Painting
- B. Printmaking
- C. Sculpture

ART 490 in painting, printmaking, or sculpture must be taken in the senior year. Work of ART 490 students is juried by the studio art faculty.

The studio art major requires two semesters of a foreign language, either French or German.

Requirements for the Secondary Teaching Minor in Art

Four art history and studio courses are required, beyond UC 047 or UC 01C (Art), making a total of 20 credits. Two of these courses must be ART 333 and ART 381. Consult the Chairman of the Department of Art or the Dean of the School of Education for further information. A secondary teaching major is not offered in art.

Liberal Arts Major in Art History

(A Typical Program)

Semester 1

Freshman Exploratory
UC 047
Distribution Requirement
Foreign Language

Semester 3

Second Foreign Language
Art History
Distribution Requirement
Distribution Requirement

Semester 5

Second Foreign Language
Art History
Distribution Requirement
Elective

Semester 2

Freshman Exploratory
Art History
Art History
Foreign Language

Semester 4

Second Foreign Language
Art History
Distribution Requirement
ART 226

Semester 6

Second Foreign Language
Art History
Distribution Requirement
Elective

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Semester 7

Art History
History Cognate
Distribution Requirement
Senior Colloquium

Semester 8

Art History
Art History
Distribution Requirement
Elective

Liberal Arts Major in Studio Art

(A Typical Program)

Semester 1

Freshman Exploratory
ART 381
Distribution Requirement
Foreign Language

Semester 3

Studio Art (300-level)
Distribution Requirement
Distribution Requirement
Elective

Semester 5

Studio Art (300- or 400-level)
Distribution Requirement
Elective
Elective

Semester 7

Studio Art (400-level)
ART 490
Distribution Requirement
Elective

Semester 2

Freshman Exploratory
ART 226
UC 047
Foreign Language

Semester 4

Studio Art (300-level)
Distribution Requirement
Distribution Requirement
Elective

Semester 6

Studio Art (300- or 400-level)
Art History
Distribution Requirement
Elective

Semester 8

Art History
Studio Art (400-level)
Senior Colloquium
Elective

ART 147 Introduction to History and Analysis of Art (5 credits)

An introduction to the history and analysis of the visual arts, for general elementary education majors, for whom it satisfies the University requirement in art. May not be taken for credit by students who have completed UC 047.

ART 226 Introduction to Studio Art (4 credits)

A study of the fundamentals of drawing, painting, and design. Required of majors in art.

Prerequisite: ART 381.

ART 236 Drawing (4 credits)

Fundamentals of drawing. The human figure is studied as a primary means of visual learning and expression.

Prerequisite: ART 226.

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ART 326 Painting (4 credits)

A studio course in the various painting media, structured mainly for art majors and minors. Portfolio to be submitted.

Prerequisite: ART 226.

ART 327 Printmaking (4 credits)

A studio course in the fundamentals of graphic arts processes (relief, planographic, intaglio, and serigraphic). Portfolio to be submitted.

Prerequisite: ART 226.

ART 328 Sculpture (4 credits)

A studio course in three-dimensional and relief form using traditional and contemporary media. Portfolio to be submitted.

Prerequisite: ART 226.

ART 333 American Art (4 credits)

Architecture, painting, and sculpture in the United States from the period of Colonial settlement until recent times. Relations of American art to European traditions are stressed. Required of secondary teaching minors in art.

Prerequisite: UC 047 or ART 147.

ART 341 German Art (4 credits)

The evolution of architecture, sculpture, and painting in Central Europe from Roman times to the present; its originality and its relation to Italian and French traditions.

Prerequisite: UC 047 or ART 147.

ART 351 Primitive Art: Africa, Oceania, the Americas (4 credits)

The major artistic styles of the regions of tribal peoples. Relationships between primitive art and modern Western art are considered.

Prerequisite: UC 047 or ART 147.

ART 361 Medieval Architecture and Sculpture (4 credits)

The art of the West from the time of Constantine to the Renaissance. Emphasis is placed upon the major period styles: Early Christian, Byzantine, Early Medieval, Carolingian, Romanesque, and Gothic.

Prerequisite: UC 047 or ART 147.

ART 369 Renaissance Art (4 credits)

Architecture, painting, and sculpture of the fifteenth and sixteenth centuries in Italy and northern Europe. Attention is centered upon major artists and their relationship with one another and with topical problems in the history of Renaissance art such as humanism, the classical revival, and perspective.

Prerequisite: UC 047 or ART 147.

ART 370 Northern Renaissance Art (4 credits)

A study of the style and iconography of Flemish, Dutch, French, and German painting and related arts from the late Medieval epoch until the mid-sixteenth century. Relationships with the Italian Renaissance are evaluated.

Prerequisite: UC 047 or ART 147.

ART 371 English Art (4 credits)

Architecture, painting, and sculpture in England from the Renaissance in the reign of Elizabeth I to the Great Exhibition of 1851 and more recent times. Special attention is given to such major figures as Inigo Jones, Wren, Adam, Reynolds, Turner, and certain modern British artists.

Prerequisite: UC 047 or ART 147.

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ART 373 Art of the Seventeenth Century (4 credits)

The rise of the Baroque style of architecture, painting, and sculpture in Italy and its development in France, Spain, and the Low Countries.

Prerequisite: UC 047 or ART 147.

ART 380 Nineteenth Century Art (4 credits)

Painting, sculpture, and architecture from the close of the French Revolution to Post-Impressionism and the Art Nouveau. The development of Neoclassicism, Romanticism, Impressionism, and other major European and American styles is investigated.

Prerequisite: UC 047 or ART 147.

ART 381 Twentieth Century Painting and Sculpture (4 credits)

A study of modern art in Europe and the United States from 1905 to the present. Painting and sculpture are emphasized in an interpretation of major styles and movements such as Fauvism, Expressionism, Cubism, De Stijl, Abstract Expressionism, Pop, Op, Minimal, and Environmental arts. Required of all art majors and secondary teaching minors.

ART 383 Modern Architecture (4 credits)

Architecture in Europe and America from the late nineteenth century to the present, coupled with an investigation of the sources of modern architectural tradition and idiom.

Prerequisite: UC 047 or ART 147.

ART 390 The Art of the Film (4 credits)

The history, techniques, and implications of the film as an art form. A study of the development of cinematic art is furthered by analysis of both silent and post-World War II film landmarks.

Prerequisite: ART 381 (or permission of the instructor).

ART 395 Cinematography (4 credits)

A studio course in the basic techniques of film-making. Students will complete short films. Emphasis will be laid on space, time, motion, color, and rhythm as the cinematic elements central to the expression of an idea.

Prerequisites: ART 226, plus one 300-level studio art course and permission of the instructor. Since enrollment in this course is limited, art majors will normally be given preference.

ART 400 Oriental Art (4 credits)

The stylistic development of the arts of India, China, and Japan, and their correspondence to the visual art forms of other Asiatic countries.

ART 425 The Art of Japan (4 credits)

A study of the major aspects of Japanese sculpture, painting, and the decorative arts from the fifth to the nineteenth century.

Prerequisites: UC 047 and ART 400.

ART 426 Advanced Painting (4 or 8 credits)

The development of techniques and ideas in creative painting. With permission of the Department of Art, may be taken for 8 credits per semester.

Prerequisites: ART 326 and approved portfolio.

ART 427 Advanced Printmaking (4 or 8 credits)

The development of ideas and processes of graphic arts (relief, planographic,

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intaglio, and serigraphic). May be taken, with permission of the Department of Art, for 8 credits per semester.

Prerequisites: ART 327 and approved portfolio.

ART 428 Advanced Sculpture (4 or 8 credits)

The development of ideas and exploration of problems in sculptural media. With permission of the Department of Art, may be taken for 8 credits per semester.

Prerequisite: ART 328.

ART 435 Chinese Art (4 credits)

The history of Chinese artistic expression in painting, sculpture, ceramics, jade, and bronze from the Shang Dynasty, ca. 1550 B.C., until the advent of the Chinese Republic in 1912.

Prerequisites: UC 047 and ART 400.

ART 445 The Art of the Ancient Near East (4 credits)

The course deals with the art of Egypt, Mesopotamia, Iran, Asia Minor, and Syria from Neolithic to Roman times.

Prerequisite: UC 047 or ART 147.

ART 451 The Art of Black Africa (4 credits)

The sculpture and related arts of the tribal peoples of West, Central, and East Africa. Attention is given to the relation of African sculpture to recent Western art.

Prerequisite: UC 047 or ART 147.

ART 455 Greek and Roman Art (4 credits)

The course is directed toward an historical and critical interpretation of pre-Classical and Classical styles of architecture, sculpture, and painting from the Minoan age through the Roman Imperial epoch. Identical with CLS 355.

Prerequisite: UC 047 or ART 147.

ART 457 Pre-Columbian and Tribal Art of the Americas (4 credits)

The architecture, sculpture, and decorative arts of South, Middle, and North American Indians from prehistoric times until the Colonial Period.

Prerequisite: UC 047 or ART 147.

ART 461 Medieval Painting (4 credits)

The style and iconography of manuscripts, wall paintings, and cathedral windows in stained glass from the Early Christian period to the Gothic.

Prerequisite: UC 047 or ART 147. (Completion of ART 361 is recommended.)

ART 465 Byzantine Art (4 credits)

The course deals with the development of Byzantine architecture, mosaic, painting, and sculpture from the time of Justinian in Byzantium and Italy to the fifteenth century in Russia and the Balkans.

Prerequisite: UC 047 or ART 147.

ART 473 Art of the Eighteenth Century (4 credits)

The evolution and spread of the Baroque style throughout the Western world, with emphasis on Central Europe and the Spanish Colonial possessions. The emergence and diffusion of the Rococo until the final reaction of Neoclassicism.

Prerequisite: UC 047 or ART 147.

ART 480 Seminar in Art History (4 or 8 credits)

This course initially familiarizes art majors with the literature and research facilities

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of art history. Individual topics of special interest are then assigned for intensive study. This course or ART 491 is required of all majors in art history and is recommended for studio art majors. With permission of the instructor, may be taken for 8 credits.

Prerequisites: UC 047 or ART 147, and three courses in art history.

ART 490 Special Problems in Studio Art (4 or 8 credits)

Individually assigned projects in painting, printmaking, or sculpture. This course is required of all majors in studio art. With permission of the Department of Art, may be taken for 8 credits. Work to be juried by studio art faculty.

Prerequisites: Senior standing as art major; completion of two courses in art history and six courses in studio art.

ART 491 Special Problems in Art History (4 or 8 credits)

A program of assigned research problems, designed for the advanced major in art. This course or ART 480 is required of all majors in art history. With permission of the Department of Art, may be taken for 8 credits.

Prerequisite: Permission of the instructor.

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DEPARTMENT OF BIOLOGICAL SCIENCES

Professors:	Clifford V. Harding, Chairman William C. Forbes V. Everett Kinsey V. N. Reddy Reuben Torch Walter L. Wilson
Associate Professors:	Francis M. Butterworth Moon J. Pak John R. Reddan Michael V. Riley Nalin J. Unakar
Assistant Professors:	Madison B. Cole, Jr. John D. Cowlshaw Paul A. Ketchum Arun K. Roy
Assistant Instructor:	Thomas A. Rodeheffer
Lecturers:	Philip T. Clampitt James R. Wells

The Department of Biological Sciences offers programs of study leading to the degree of Bachelor of Arts. The courses in biology are designed for students in two types of major: liberal arts majors and secondary education teaching majors. The liberal arts major prepares the student for graduate studies in the life sciences, laboratory and research work in industries concerned with biological materials, and professional careers in medicine, dentistry, and allied fields. This liberal arts program in biology is particularly well suited to the needs of the premedical student. Since modern biology is an exact science, corequisite training in chemistry, physics, and mathematics is extensive.

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

It should be noted that the University Course Program has been modified for the Department of Biological Sciences so that the two Freshman Exploratories and the Senior Colloquium can, if properly selected, substitute for three of the Distribution Requirements. Appropriate selections should be determined in consultation with the academic adviser.

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

Requirements for the Liberal Arts Major in Biology

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

Admission to major standing requires 15 credits in biology; plus 8 credits in any combination of the required courses in mathematics, physics, and chemistry; and acceptance by the Department.

Requirements for the Secondary Teaching Major in Biology

Thirty-five credits in biology are required. Minors in chemistry or physics, or a group minor in chemistry and physics (as listed under requirements for the teaching minor in science p. 207) are recommended. Additional requirements include 8 credits in mathematics and the following education courses: ED 244, 245, ED 428, and ED 455. For details on the symbolic systems requirement for this major, see the above section on requirements for the liberal arts major in biology.

Admission to major standing requires 15 credits in biology; 8 credits in any combination of the required courses in mathematics, physics, and chemistry; acceptance by the Department of Biological Sciences and concurrent acceptance into the School of Education.

Requirements for the Secondary Teaching Minor in Biology

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

Liberal Arts Major in Biology

(A Typical Program)

Semester 1

Freshman Exploratory

Semester 2

Freshman Exploratory

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BIO 111, 112
CHM 104, 107

Semester 3

Elective
BIO Lecture & Lab
MTH 154 (or 121)²
CHM 204, 207

Semester 5

PHY 151 (or 101)²
BIO Lecture & Lab
Foreign Language³
Distribution Requirement

Semester 7

BIO Lecture & Lab
Senior Colloquium
Elective

BIO 113, 114
CHM 203, 206
(MTH 134)¹

Semester 4

Distribution Requirement
BIO Lecture & Lab
MTH 155 (or 122)²
CHM 205, 208

Semester 6

PHY 152, 158 (or 102, 158)²
BIO Lecture & Lab
Foreign Language³

Semester 8

BIO Lecture & Lab
Distribution Requirement
Elective
Elective

¹A mathematics aptitude examination is given to all entering freshmen. Students with an insufficient background to enter MTH 154-155, may take MTH 134 which provides the background for MTH 154-155.

²Students planning on graduate work in certain fields or attending certain professional schools are urged to take MTH 154-155, and PHY 151-152. It is important that students make this decision after consultation with their advisers.

³German, French, or Russian is recommended.

Secondary Teaching Major in Biology With a Group Minor in Chemistry and Physics (A Typical Program)

Semester 1

Freshman Exploratory
BIO 111, 112
CHM 104, 107

Semester 3

ED 244
BIO Lecture & Lab
CHM 204, 207
MTH 154 (or 121)¹

Semester 5

PHY 151 (or 101)¹

Semester 2

Freshman Exploratory
BIO 113, 114
CHM 203, 206
UC 054

Semester 4

ED 245
BIO Lecture & Lab
Elective
MTH 155 (or 122)¹

Semester 6

PHY 152, 158 (or 102, 158)¹

¹Students planning to enter graduate work in certain fields or to attend certain professional schools are urged to take MTH 154-155 and PHY 151-152. It is important that students make this decision after consultation with their advisers.

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BIO Lecture & Lab
Foreign Language²
Elective

Semester 7
Senior Colloquium
BIO Lecture & Lab
Physics elective

BIO Lecture & Lab
Foreign Language²

Semester 8
ED 428
ED 455

²German, French, or Russian is recommended.

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

BIO 104 Biology of the Human (4 credits)

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

BIO 105 Biology of the Human (4 credits)

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

Prerequisite: BIO 104 or permission of the instructor.

BIO 106 Local Flora (4 credits)

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

BIO 108 Bio-engineering (4 credits)

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

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

BIO 111 Biology (4 credits)

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

BIO 112 Biology Laboratory (1 credit)

To accompany BIO 111.

BIO 113 Biology (4 credits)

Continuation of BIO 111. Offered in the Winter Semester.

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BIO 114 Biology Laboratory (1 credit)

To accompany BIO 113.

BIO 221 Physiology (4 credits)

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

Prerequisite: BIO 113.

BIO 222 Anatomy and Physiology Laboratory (1 credit)

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

BIO 223 Histology (4 credits)

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

Prerequisite: BIO 113.

BIO 224 Histology Laboratory (1 credit)

To accompany BIO 223.

BIO 225 Elementary Biophysics and Cellular Biochemistry (4 credits)

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

Prerequisite: BIO 113.

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

To accompany BIO 225.

BIO 231 Microbiology (4 credits)

A discussion of the classification, morphology, and physiology of micro-organisms.

Prerequisites: BIO 113 and one year of chemistry.

BIO 232 Microbiology Laboratory (1 credit)

To accompany BIO 231.

BIO 237 Botany (4 credits)

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

Prerequisite: BIO 113.

BIO 238 Botany Laboratory (1 credit)

To accompany BIO 237.

BIO 241 Plant Morphology (4 credits)

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

Prerequisite: BIO 113.

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BIO 242 Plant Morphology Laboratory (1 credit)

To accompany BIO 241.

BIO 243 Plant Physiology (4 credits)

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

BIO 244 Plant Physiology Laboratory (1 credit)

To accompany BIO 243.

BIO 247 Invertebrate Zoology (4 credits)

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

Prerequisite: BIO 113.

BIO 248 Invertebrate Zoology Laboratory (1 credit)

To accompany BIO 247.

BIO 249 Endocrinology (4 credits)

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

Prerequisite: BIO 225 or 221.

BIO 250 Endocrinology Laboratory (1 credit)

To accompany BIO 249. Individual research projects. Offered in the Winter Semester. Prerequisite: Permission of the instructor.

BIO 301 Ecology (4 credits)

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

BIO 302 Ecology Laboratory (1 credit)

To accompany BIO 301.

BIO 309 Parasitology (4 credits)

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

BIO 310 Parasitology Laboratory (1 credit)

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

BIO 323 Developmental Biology (4 credits)

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

Prerequisites: BIO 113, 114.

Corequisite: BIO 324.

BIO 324 Developmental Biology Laboratory (1 credit)

To accompany BIO 323. A study of the anatomy of developing vertebrate animals.

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Individual and group research projects in experimental morphogenesis. Offered in the Winter Semester.

Corequisite: BIO 323.

BIO 341 Genetics (4 credits)

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

Prerequisite: BIO 113.

BIO 342 Genetics Laboratory (1 credit)

To accompany BIO 341.

BIO 403 Protozoology (4 credits)

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

BIO 404 Protozoology Laboratory (1 credit)

To accompany BIO 403.

BIO 405 Special Topics (2, 3, or 4 credits)

Prerequisite: Permission of the instructor.

BIO 407 Cellular Biochemistry (4 credits)

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

Prerequisites: BIO 225, CHM 204, PHY 102.

BIO 408 Cellular Biochemistry Laboratory (1 credit)

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

BIO 409 Cellular Biochemistry (4 credits)

Continuation of BIO 407.

BIO 410 Cellular Biochemistry Laboratory (1 credit)

To accompany BIO 409.

BIO 415 Differentiation (4 credits)

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

Prerequisite: BIO 323.

BIO 425 Biophysics (4 credits)

BIO 426 Biophysics Laboratory (1 credit)

To accompany BIO 425.

BIO 429 Cytochemistry (4 credits)

A survey of techniques currently used in microscopy to analyze the distribution and quantity of specific chemicals within cells and their organelles. Techniques included

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are: specific staining reactions, enzyme digestion, metabolic inhibition, and autoradiography. Offered in the Fall Semester.

Prerequisites: BIO 223, 224, and permission of the instructor.

BIO 430 Cytochemistry Laboratory (1 credit)

To accompany BIO 429. Individual research projects employing cytochemical techniques to study and compare the chemical compositions of several types of cells.

BIO 435 Biochemical and Biophysical Genetics (4 credits)

An integrated discussion of the concepts of biochemical genetics derived from microbial systems, and their application to the problems of development in multicellular organisms.

Prerequisite: BIO 341.

BIO 436 Biochemical and Biophysical Genetics Laboratory (1 credit)

To accompany BIO 435.

BIO 437 Virology (4 credits)

Molecular biology of viruses, predominantly bacterial. Offered in the Winter Semester.

Prerequisite: BIO 225, 231, or 341.

BIO 438 Virology Laboratory (1 credit)

To accompany BIO 437.

BIO 441 Microbial Genetics (4 credits)

A discussion of the genetics of microbial systems, including molds, bacteria, Protozoa, and viruses.

Prerequisites: BIO 231 and BIO 341.

BIO 442 Microbial Genetics Laboratory (1 credit)

To accompany BIO 441.

BIO 445 Ultrastructure (4 credits)

A consideration of the fine structure of cells and cell products as revealed by electron microscopy and other procedures.

Prerequisite: BIO 223.

BIO 446 Ultrastructure Laboratory (1 credit)

To accompany BIO 445.

BIO 455 Seminar (4 credits)

Discussion of recent publications in the biological sciences.

BIO 463 Cell Biology (4 credits)

Prerequisites: BIO 223 and permission of the instructor.

BIO 464 Cell Biology Laboratory (1 credit)

To accompany BIO 463.

BIO 471 Advanced Physiology—Nerve (4 credits)

Review and analysis of the modern concepts of membrane excitation phenomena of nerve and synapse. Electrophysiological phenomena discussed mostly at cellular and molecular levels. Offered in the Fall Semester in alternate years.

Prerequisites: BIO 221 and permission of the instructor.

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BIO 472 Advanced Physiology Laboratory (1 credit)

To accompany BIO 471. An introduction to research techniques in electrophysiology. Work will include: use of oscilloscope, amplifiers, and stimulator; extracellular potential recording technique; microelectrode technique. Offered in the Fall Semester in alternate years.

BIO 473 Advanced Physiology—Muscle (4 credits)

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

Prerequisites: BIO 221 and permission of the instructor.

BIO 474 Advanced Physiology Laboratory (1 credit)

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

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

Prerequisite: Permission of the instructor.

BIO 497 Apprentice College Teaching (2 credits)

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

DEPARTMENT OF CHEMISTRY

Professors:	Paul Tombouliau, Chairman Kenneth M. Harmon
Associate Professors:	Gottfried Brieger James E. Davis Julien Gendell Steven R. Miller Frederick W. Obear Joel W. Russell Robert L. Stern
Assistant Professors:	Jeffrey A. Greenhouse Parbury P. Schmidt Michael D. Sevilla

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

The University Course Program has been modified for students with chemistry majors so that the two Freshman Exploratories and the Senior Colloquium, if properly selected, can be substituted for three of the Distribution Requirements. Appropriate selections should be determined in consultation with the academic adviser.

Under some circumstances, chemistry majors may complete their general education requirements in Allport College, Charter College, or New College, but it is critical that they should first consult with a departmental adviser so that their graduation date will not be affected.

The Department is pleased to offer credit through the Advanced Placement Program. (See p. 284.) Entering students interested in this option should consult with a departmental adviser well in advance of their first registration.

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Requirements for the Major in Chemistry

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

Forty-eight credits in chemistry are required. Of these at least 32 credits must be taken in lecture courses including CHM 235, 312, and 345 and at least 13 credits in laboratory courses including CHM 238, 317, and 348. (CHM 444 and 351 are highly recommended electives.) Twenty-six credits in mathematics and physics are required, including MTH 254, PHY 158, and PHY 371. Admission to major standing requires a total of 32 credits in chemistry, physics, and mathematics.

For this major the Department accepts all options open to students for satisfying the University requirement in symbolic systems.

American Chemical Society Certification Program

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

Requirements for the Liberal Arts Major in Chemistry

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

Thirty-four credits in chemistry are required, including CHM 204 or CHM 234, and CHM 205 or CHM 344. Of this total, at least 7 credits must be in laboratory courses in chemistry, including at least one 300-level course. MTH 155, PHY 152, and PHY 158 are required. (PHY 371 is a highly recommended elective and a prerequisite to CHM 312 and 345.) Admission to major standing requires a total of 28 credits in chemistry, physics, and mathematics.

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For this major the Department accepts all options open to students for satisfying the University requirement in symbolic systems.

Requirements for the Secondary Teaching Major in Chemistry

Thirty credits in chemistry are required, including CHM 204 or 234, and CHM 205 or 344. Of this total, 6 credits in laboratory courses in chemistry are required. Eight credits in mathematics are required, including MTH 155. A biology-physics group minor consisting of at least 12 credits in each discipline is strongly recommended. Other minors are available under certain conditions; consult the chairman of the Department of Chemistry for details. The following education courses are required: ED 244, 245, 428, and 455. ENV 151 and 181 are strongly recommended electives. Admission to major standing requires a total of 28 credits in chemistry, biology, physics, and mathematics.

For this major the Department accepts all options open to students for satisfying the University requirement in symbolic systems.

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

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

Requirements for the Secondary Teaching Minor in Chemistry

Twenty credits in chemistry courses are required.

Major in Chemistry

(A Typical Program)

Semester 1

CHM 114 or 124, 117

MTH 154

Distribution Requirement

Freshman Exploratory

Semester 3

CHM 234, 237

MTH 254

PHY 152, 158

Distribution Requirement

Semester 5

CHM 344

Semester 2

CHM 115 or 125, 118

MTH 155

PHY 151

Freshman Exploratory

Semester 4

CHM 235, 238

PHY 371

(MTH 255)¹

Distribution Requirement

Semester 6

CHM 345, 348

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(CHM 351, 357)¹
Distribution Requirement

Semester 7
CHM 312, 317
(CHM 444, 448)¹
Elective

(CHM 324, 328)¹
Elective
Semester 8
CHM Elective
Senior Colloquium
Elective

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

Liberal Arts Major in Chemistry

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

Semester 1
CHM 104, 107 or 114, 117
MTH 134 or 154
Distribution Requirement
Freshman Exploratory

Semester 3
CHM 204, 207 or 234, 237
MTH 155 or 254
PHY 151
Distribution Requirement

Semester 5
CHM Elective¹ or 344
BIO 111, 112
PHY 371

Semester 7
(CHM Elective)¹
BIO Elective
Elective

Semester 2
CHM 203, 206 or 115, 118
MTH 154 or 155
Distribution Requirement
Freshman Exploratory

Semester 4
CHM 205, 208 or 235, 238
MTH 254 or Elective
PHY 152, 158
Distribution Requirement

Semester 6
CHM Elective¹
BIO 113, 114
Elective

Semester 8
(CHM Elective)¹
Senior Colloquium
Elective

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

Secondary Teaching Major in Chemistry with a Group Minor in Biology and Physics

(A Typical Program)

Semester 1
CHM 104, 107
MTH 134 or 154
Distribution Requirement
Freshman Exploratory

Semester 3
CHM 204, 207

Semester 2
CHM 203, 206
MTH 154 or 155
UC 054
Freshman Exploratory

Semester 4
CHM 205, 208

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PHY 151
MTH 155 or Elective
ED 244

Semester 5
CHM Elective
BIO 111, 112
Distribution Requirement

Semester 7
BIO Elective
PHY Elective
Senior Colloquium

PHY 152, 158
ED 245
Elective

Semester 6
CHM Elective
BIO 113, 114
Elective

Semester 8
ED 428
ED 455

There are three introductory chemistry courses: CHM 104, 114, and 124. CHM 104 is the first course of a four-semester sequence including CHM 203, 204, and 205 intended primarily for chemistry students in the liberal arts program, premedical students, secondary science teachers, and biology majors. CHM 114 and 124 are intended for chemistry students in the chemistry major program and for engineering, physics, and mathematics students. CHM 124 is designed for the student with a strong high school science and mathematics background.

CHM 104 Introductory Chemistry (4 credits)

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

Prerequisite: Two years of high school mathematics.

CHM 107 Introductory Chemistry Laboratory (1 credit)

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

Prerequisite or corequisite: CHM 104.

CHM 114 Chemistry (4 credits)

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

Prerequisite: Two years of high school mathematics. Some knowledge of high school chemistry is assumed. Concurrent registration in MTH 154 or MTH 134 is desirable.

CHM 115 Chemistry (4 credits)

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

Prerequisite: CHM 114 or 124.

Prerequisite or corequisite: MTH 154.

CHM 117 Chemistry Laboratory (1 credit)

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

Prerequisite or corequisite: CHM 114 or CHM 124.

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CHM 118 Chemistry Laboratory (1 credit)

Experiments illustrating principles and techniques of analytical chemistry. Offered in the Winter Semester.

Prerequisite: CHM 117.

CHM 124 Chemistry (4 credits)

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

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

Corequisite: MTH 154.

CHM 125 Chemistry (4 credits)

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

Prerequisite: CHM 124.

Corequisite: MTH 155.

CHM 191 Computer Techniques (2 credits)

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

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

CHM 203 Introductory Organic Chemistry (4 credits)

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

Prerequisite: CHM 104 or 114.

CHM 204 Intermediate Organic Chemistry (4 credits)

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

Prerequisite: CHM 203.

CHM 205 Intermediate Chemistry (Dynamics) (4 credits)

An introduction to chemical energetics: thermodynamics, kinetics, solution chemistry. Applications will be drawn from biochemical sources where appropriate. Offered in the Winter Semester.

Prerequisites: CHM 203 or 115; MTH 154 or 121.

Prerequisite or corequisite: MTH 155 or 122.

CHM 206 Introductory Organic Chemistry Laboratory (1 credit)

Fundamental techniques of organic chemistry. Offered in the Winter Semester.

Prerequisite or corequisite: CHM 203.

CHM 207 Intermediate Organic Chemistry Laboratory (1 credit)

Synthetic, degradative, and analytical techniques of organic chemistry with emphasis on natural products. Offered in the Fall Semester.

Prerequisite: CHM 206.

Corequisite: CHM 204.

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CHM 208 Intermediate Chemistry Laboratory (1 credit)

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

Prerequisite or corequisite: CHM 205.

CHM 234-235 Organic Chemistry (4 credits each)

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

Prerequisite: CHM 114 or 104.

CHM 237-238 Organic Chemistry Laboratory (2 credits each)

Qualitative analysis techniques of modern synthetic and physical organic chemistry.

Prerequisite: CHM 117 or 107.

Prerequisites or corequisites: CHM 234-235.

CHM 261 Radiochemistry (3 credits)

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

Prerequisite: CHM 206 or 118.

CHM 312 Inorganic Chemistry (4 credits)

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

Prerequisites: CHM 205 or 344, PHY 371.

CHM 317 Inorganic Chemistry Laboratory (1 credit)

Advanced preparatory techniques; methods of purification and analysis.

Prerequisite or corequisite: CHM 312.

CHM 324 Analytical Chemistry (2 credits)

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

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

Corequisite: CHM 328.

CHM 328 Analytical Chemistry Laboratory (2 credits)

Laboratory coordinated with CHM 324.

Corequisite: CHM 324.

CHM 344 Physical Chemistry (4 credits)

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

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

CHM 345 Physical Chemistry (4 credits)

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

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

CHM 348 Physical Chemistry Laboratory (2 credits)

Prerequisites: CHM 344, PHY 158.

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CHM 351 Biochemistry (4 credits)

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

Prerequisite: CHM 235 or 204.

CHM 357 Biochemistry Laboratory (1 credit)

Prerequisite or corequisite: CHM 351.

CHM 371 Environmental Chemistry (3 credits)

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

Prerequisites: CHM 234; some knowledge of biochemistry desirable.

CHM 400 Seminar (1 credit)

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

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

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

Prerequisite: Permission of the Department.

CHM 413 Advanced Inorganic Chemistry (4 credits)

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

Prerequisite: CHM 312.

CHM 422 Advanced Analytical Chemistry (4 credits)

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

Prerequisite: CHM 324.

CHM 426 Instrumentation (3 credits)

Analysis of design and operation of instrumental equipment; includes laboratory.

Prerequisites: CHM 238, 328, 348; PHY 158.

CHM 434 Advanced Organic Chemistry (4 credits)

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

Prerequisite: CHM 204 or 235.

CHM 444 Advanced Physical Chemistry (4 credits)

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

Prerequisite: CHM 345.

CHM 448 Spectroscopy Laboratory (2 credits)

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

Prerequisite or corequisite: CHM 444.

CHM 452 Advanced Biochemistry (4 credits)

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

Prerequisite: CHM 351 or BIO 407.

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CHM 487 Advanced Preparations (2 or 4 credits)

Specialized laboratory work in selected areas emphasizing advanced techniques.

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

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

Laboratory and library practice in undergraduate research.

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

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

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

Advanced treatment of selected topics of inorganic chemistry.

Prerequisite: CHM 413 or equivalent.

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

Advanced treatment of selected topics of current analytical chemistry such as separation methods, instrumentation, electrochemistry.

Prerequisite: CHM 422 or equivalent.

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

Advanced treatment of selected special topics: natural products, organometallics, reaction mechanisms, synthesis.

Prerequisite: CHM 434 or equivalent.

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

Special topics in physical chemistry such as quantum mechanics, statistical mechanics and thermodynamics, kinetics, group theory.

Prerequisite: CHM 444 or equivalent.

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

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

Prerequisite: CHM 452 or equivalent.

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DEPARTMENT OF CLASSICAL LANGUAGES AND LITERATURES

Professor: Robert R. Dyer, Chairman

Assistant Professors: Peter J. Binkert
Cherryl A. Wagner

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

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

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

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

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

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

The requirements for each of the departmental majors satisfy the University symbolic systems requirement.

Requirements for the Liberal Arts Major in Classical Languages

Thirty-six credits are required, to be chosen from the departmental offerings in Latin (in courses beyond LTN 215), in Greek, and in classics or ancient history. A typical classics major would include: 12 credits in Latin (LTN 320, LTN 414-415); 12-16 credits in Greek (GRK 114-115, GRK 214-215); 8-12 credits in classics (CLS 312, 339, 340, etc.). This major is usually taken together with a concentration in a discipline such as ancient history, conceptual history, linguistics, or literature. Those planning graduate work should plan their program with their departmental adviser so that their degree includes at least 20 credits in Greek and 20 credits in their concentration. Admission to major standing requires two Freshman Exploratories and the completion of LTN 215 (either by course work or by proficiency examination).

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Requirements for the Liberal Arts Major in Latin

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

Requirements for the Secondary Teaching Major in Latin

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

CLS 204 Classical Greek Philosophy (4 credits)
Identical with PHL 204.

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

A study of the types of literature found in the Old Testament. Identical with ENG 211. Prerequisites: Two Freshman Exploratories.

CLS 303, 304 Classical Literature in Translation (4 credits each)
A two-semester survey of the major writers of Greece and Rome. Either semester may be elected independently.

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

CLS 317 The Classical Tradition (4 credits)
A study of the classical influence on Western culture. While some attention is given to the visual arts, the main emphasis is on the classical traditions in Western literature.

CLS 324 The Ancient Historians (4 credits)
The aims, methods, achievements, and limitations of ancient historiography studied through a reading of the most prominent ancient historians in translation. Identical with HST 324. Offered in alternate years.

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

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

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CLS 340 Imperial Rome (4 credits)

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

CLS 355 Greek and Roman Art (4 credits)

The course is directed toward an historical and critical interpretation of pre-Classical and Classical styles of architecture, sculpture, and painting from the Minoan age through the Roman Imperial epoch. Identical with ART 455.

Prerequisite: UC 047 or ART 147.

CLS 371 Topics in the History of Classical Concepts (4 credits)

An analysis of the origin and history of various classical concepts important in the history of Western civilization and of the attitudes of major writers and philosophers to them, e.g. the hero, success and failure, duty, hybris and nemesis, sin, democracy. May be taken for one or more semesters.

CLS 372 The Humanities (4 credits)

The study of *humanitas* as part of an orator's training in techniques of psychological persuasion, with examples of speeches using this training, and the history of the goals of the liberal arts as an education in the Western tradition.

CLS 382 Ancient and Medieval Philosophers (4 credits)

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

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

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

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

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

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

GRK 114-115 Elementary Greek (4 credits each)

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

GRK 214-215 Intermediate Greek (4 credits each)

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

Prerequisite: GRK 115 or an equivalent proficiency.

GRK 320 Selections from Greek Literature (4 credits)

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

Prerequisite: GRK 215 or an equivalent proficiency.

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GRK 480 Advanced Greek (4 credits)

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

Prerequisite: GRK 320 (4 or more credits).

LTN 114-115 Elementary Latin (4 credits each)

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

LTN 214-215 Intermediate Latin (4 credits each)

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

Prerequisite: LTN 115 or an equivalent proficiency.

LTN 320 Selections from Latin Literature (4 credits)

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

Prerequisite: LTN 215 or an equivalent proficiency.

LTN 480 Advanced Latin (4 credits)

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

Prerequisite: LTN 320 (4 or more credits).

DEPARTMENT OF ECONOMICS

Professors:	Sid Mittra, Chairman Norton C. Seeber Theodore O. Yntema (Visiting)
Associate Professors:	Eleutherios N. Botsas Karl D. Gregory Robbin R. Hough
Assistant Professors:	Anthony P. Cephalas David P. Doane John Hurd II Lon Polk John E. Tower Kenneth C. Young

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

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

Requirements for the Liberal Arts Major in Economics

The major in economics requires a total of eight courses and one laboratory (33 credits) in economics, distributed as follows: US 056, ECN 216, ECN 217, ECN 418 or ECN 480, ECN 210 and 211 (or MGT 210 and 211), and three other courses in the De-

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partment. In addition, all majors must complete two semesters (8 credits) of work in one other social science, and they must take MTH 121-122 (preferably during their first year). The sequence MTH 154-155 (Calculus) may be substituted for the MTH 121-122 sequence, and students who plan to take graduate work in economics are urged to take the MTH 154-155 option. MTH 154 may be substituted for MTH 122.

The two mathematics courses required in the economics program fulfill the University symbolic systems requirement.

Requirements for Major Standing

Admission to major standing in economics requires that the student (a) have completed Freshman Exploratories, UC 056, ECN 216, ECN 217, MTH 121-122 or equivalent; (b) have completed 56 credits or more; and (c) have a 2.0 cumulative grade point average or better.

Liberal Arts Major in Economics

(A Typical Program)

Semester 1

Freshman Exploratory
MTH 121 (or MTH 154)
UC 056
Elective

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
Distribution Requirement
Elective
Elective

Semester 2

Freshman Exploratory
MTH 122 (or MTH 155)
Distribution Requirement
Elective

Semester 4

ECN 217
Distribution Requirement
Social Science
Requirement
Elective

Semester 6

Economics Elective
Distribution Requirement
Elective
Elective

Semester 8

ECN 480
Senior Colloquium
Elective

Basic Courses

The following courses are part of the basic program of the

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economics major and will be offered each year. Under special circumstances, the prerequisites and corequisites for a course may be waived.

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.

Prerequisite: MTH 122 or equivalent.

Corequisite: ECN 211.

ECN 211 Laboratory for ECN 210 (1 credit)

Use of computers in statistics.

ECN 216 Microeconomic Analysis (4 credits)

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

Prerequisite: UC 056 or equivalent.

Prerequisite or corequisite: 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.

Prerequisite: UC 056 or equivalent.

Prerequisite or corequisite: MTH 122 or equivalent.

Economics Electives

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

ECN 223 The Indian Economy (4 credits)

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

Prerequisite: Permission of the instructor.

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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.

Prerequisite: UC 056 or equivalent.

ECN 300 Systems Analysis (4 credits)

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

Prerequisite: ECN 216, ECN 217, 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.

Prerequisite: ECN 217 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.

Prerequisite: UC 056 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.

Prerequisite: UC 056 or equivalent.

ECN 321 Monetary Theory and Policy (4 credits)

Analysis of modern monetary and banking theories. The course investigates both domestic and international monetary analysis and policies, and the relationship between monetary and fiscal policies as they affect the economy.

Prerequisite: ECN 217 or equivalent.

ECN 322 Capital Markets (4 credits)

Analysis of the operation of major financial institutions and markets. The sources and uses of funds for corporations and other organizations. Identical with MGT 322.

Prerequisite: 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.

Prerequisite: ECN 216 or equivalent.

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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.

Prerequisite: 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.

Prerequisite: 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.

Prerequisite: UC 056 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.

Prerequisite: 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.

Prerequisite: UC 056 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.

Prerequisite: ECN 216 or equivalent.

ECN 405 Econometrics (4 credits)

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

Prerequisites: ECN 210, ECN 216, ECN 217 (or equivalent courses), and permission of the instructor.

ECN 417 Advanced Economic Theory (4 credits)

This course covers selected topics in the economic theory of resource allocation, economic growth, and stability.

Prerequisites: ECN 216 and ECN 217, or equivalent.

ECN 418 Selected Topics in Economic Policy (4 credits)

Prerequisite: Major standing.

ECN 442 Operations Research (4 credits)

Operations research techniques are used in exploring problems selected from several areas of organizational and business analysis. Identical with MGT 442.

Prerequisites: ECN 216 and ECN 217, or equivalent.

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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. Graded on an "S" or "N" basis. 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 (4 credits)

Offered every semester.

Prerequisite: Permission of the instructor.

DEPARTMENT OF ENGLISH

Professors:	John P. Cutts, Chairman Maurice F. Brown Thomas Fitzsimmons William Schwab Gertrude M. White
Associate Professors:	John G. Blair Joseph W. DeMent Peter G. Evarts, Assistant to the Chairman James F. Hoyle David W. Mascitelli (On leave 1971-72) Donald E. Morse Marilyn L. Williamson
Assistant Professors:	Charles M. Broh Jane Donahue Robert T. Eberwein Daniel H. Fullmer William F. Horwath Arlene M. Jackson Beverley F. Jones
Instructors:	Robert L. Donald Nigel Hampton Brian F. Murphy Helen J. Schwartz
Special Instructors:	Margaret L. Kurzman Joan G. Rosen

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

The Department gives almost complete freedom in choice of courses, but hopes all majors will try to make sense of their pro-

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grams with respect to variety and concentration and depth. Seek our counsel; we welcome the opportunity to discuss the study of literature with you and to help in your selection of courses.

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

Students electing majors in the Department of English may complete their general education requirement in the University Course Program or in Allport College, Charter College, or New College. Their choice should be made in consultation with their advisers.

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

The Liberal Arts Major and Secondary Teaching Major in English

A major in English requires ten courses (40 credits), including ENG 140, which should be taken in either semester of the freshman year. A total of 4 credits toward the major or minor may be drawn from UC 018 or a course in the literature of a foreign or classical language.

The Department accepts for these two major programs all the options open to students under the University symbolic systems requirement. (See, however, the departmental recommendation to those contemplating graduate studies in English on p. 99.)

Recommendations for the Liberal Arts Major and the Secondary Teaching Major

ENG 241 and 242: The Department recommends ENG 241 and 242 to all majors and minors. The two courses comprise an introductory survey of English literature through the study of a limited number of great writers and significant periods of literary history.

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

A course in American literature;
a course in Shakespeare;
a course in the study of language, preferably ENG 377;
a course in composition, such as ENG 210;
a course in the study of poetry.

Recommendations for Students Contemplating Graduate School

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

Recommendations for the Secondary Teaching Minor

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

The English Major with a Concentration in Linguistics

A modified English major with a concentration in linguistics is available for interested students. For details see the Department of Linguistics, p. 121.

Special Note to Non-Majors and Elementary Education Students

Non-majors and elementary education students with major or minor concentrations in language arts should select from the

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following courses: ENG 105, 111, 201, 202, 207, 208, 209, 224, 241, 242. Students in these categories may not elect ENG 140, since it is an intensive course designed specifically as preparation for advanced courses in the major.

ENG 009 Aids to Expository Writing

A non-credit course designed to assist students in developing the basic skills of writing expository prose; offered as a tutorial by the Writing Center. (Grade of "S" or "N" appears on transcript.)

ENG 105 Shakespeare (4 credits)

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

ENG 111 Modern Literature (4 credits)

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

ENG 140 Introduction to Literary Studies (4 credits)

Intensive practice in the techniques of reading literature and introduction to important basic concepts of criticism and commentary. Reserved for English majors and minors as their first departmental course.

Prerequisite: Intention to major or minor in English.

ENG 200 Topics in Literature and Language (4 credits)

Topics or problems selected by the instructor.

Prerequisites: Two Freshman Exploratories.

ENG 201 Poetry (4 credits)

Introduction to the analysis and enjoyment of poetry.

Prerequisites: Two Freshman Exploratories.

ENG 202 Epic (4 credits)

Introduction to the analysis and enjoyment of the epic.

Prerequisites: Two Freshman Exploratories.

ENG 207 Drama (4 credits)

Introduction to the analysis and enjoyment of drama.

Prerequisites: Two Freshman Exploratories.

ENG 208 Biography (4 credits)

Introduction to the analysis and enjoyment of biography.

Prerequisites: Two Freshman Exploratories.

ENG 209 The Novel (4 credits)

Introduction to the analysis and enjoyment of the novel.

Prerequisites: Two Freshman Exploratories.

ENG 210 Fundamentals of Exposition (4 credits)

A course in composition designed to meet the needs of secondary teachers of English.

Prerequisites: Two Freshman Exploratories.

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

A study of the types of literature found in the Old Testament. Identical with CLS 211.
Prerequisites: Two Freshman Exploratories.

ENG 224 American Writers (4 credits)

A study of a small number of major works which constitute the core of the American literary tradition, including *The Scarlet Letter*, *Moby Dick*, and *Huckleberry Finn*.
Prerequisites: Two Freshmen Exploratories.

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

Close examination of major works by these three authors.
Prerequisites: Two Freshmen Exploratories.

ENG 242 English Augustan and Romantic Works (4 credits)

A close examination of major texts of eighteenth and early nineteenth century English literature.
Prerequisites: Two Freshmen Exploratories.

ENG 290 Introduction to Critical Methods (4 credits)

A general introduction to the principal critical methods that have been used to analyze literature, together with the assumptions which underly those methods.
Prerequisite: ENG 140 or permission of the instructor.

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

Special problems or topics selected by the instructor.
Prerequisite: ENG 140 or permission of the instructor.

ENG 307 Modern Drama (4 credits)

Studies in English, American, and Continental drama since Ibsen.
Prerequisite: ENG 140 or permission of the instructor.

ENG 310 Advanced Exposition (4 credits)

Practice in non-fictional writing, primarily the critical essay. Close criticism of students' writing, individually and in class. Continuous discussion of the meanings of style. No news or editorial writing. Students should submit samples of their work in the semester preceding that in which they wish to enroll.
Prerequisite: Permission of the instructor.

ENG 311 Chaucer (4 credits)

The major works, with emphasis on *The Canterbury Tales* and *Troilus and Criseyde*.
Prerequisite: ENG 140 or permission of the instructor.

ENG 312 Classical Mythology (4 credits)

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

ENG 315 Shakespeare (4 credits)

Reading and discussion of a representative selection of the plays and poetry.
Prerequisite: ENG 140 or permission of the instructor.

ENG 317 Early American Literature (4 credits)

Studies in American literature before 1820. The course may concentrate on a type or

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movement within the period, at the discretion of the instructor.

Prerequisite: ENG 140 or permission of the instructor.

ENG 322 Nineteenth Century American Fiction (4 credits)

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

Prerequisite: ENG 140 or permission of the instructor.

ENG 324 American Romanticism (4 credits)

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

Prerequisite: ENG 140 or permission of the instructor.

ENG 326 The Gilded Age (4 credits)

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

Prerequisite: ENG 140 or permission of the instructor.

ENG 332 Modern American Fiction (4 credits)

Readings in American fiction from Henry James to the present.

Prerequisite: ENG 140 or permission of the instructor.

ENG 333 Modern American Poetry (4 credits)

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

Prerequisite: ENG 140 or permission of the instructor.

ENG 340 American Writing Now (4 credits)

Contemporary American poetry, drama, and fiction.

Prerequisite: ENG 140 or permission of the instructor.

ENG 341 A Survey of American-Jewish Literature (4 credits)

Reading and critical analysis of representative selections from twentieth century American-Jewish literature.

Prerequisite: ENG 140 or permission of the instructor.

ENG 342 Black American Writers (4 credits)

A study of black literary figures and of the black man in literature.

Prerequisite: ENG 140 or permission of the instructor.

ENG 353 Old English Literature (4 credits)

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

Prerequisite: ENG 140 or permission of the instructor.

ENG 354 Medieval Literature (4 credits)

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

Prerequisite: ENG 140 or permission of the instructor.

ENG 355 Literature of the English Renaissance (4 credits)

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

Prerequisite: ENG 140 or permission of the instructor.

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ENG 356 Drama of the English Renaissance (4 credits)

A survey of English drama (exclusive of Shakespeare) from 1590 to 1640.

Prerequisite: ENG 140 or permission of the instructor.

ENG 360 Seventeenth Century English Poetry (4 credits)

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

Prerequisite: ENG 140 or permission of the instructor.

ENG 366 Restoration and Eighteenth Century Drama (4 credits)

Study of Restoration comedy, tragedy, and the heroic play and/or the sentimental drama of the eighteenth century.

Prerequisite: ENG 140 or permission of the instructor.

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

Studies in the prose and poetry of this period with emphasis on the writings of Dryden, Swift, and Pope.

Prerequisite: ENG 140 or permission of the instructor.

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

Prose and poetry of the second half of the eighteenth century with emphasis on Dr. Johnson and his circle and the development of the novel.

Prerequisite: ENG 140 or permission of the instructor.

ENG 369 The English Novel (4 credits)

A study of representative English novels.

Prerequisite: ENG 140 or permission of the instructor.

ENG 370 The Romantic Period (4 credits)

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

Prerequisite: ENG 140 or permission of the instructor.

ENG 371 Victorian Literature (4 credits)

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

Prerequisite: ENG 140 or permission of the instructor.

ENG 375 Modern Literature (4 credits)

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

Prerequisite: ENG 140 or permission of the instructor.

ENG 376 History of the English Language (4 credits)

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

Prerequisite: ENG 140 or permission of the instructor.

ENG 377 Modern English Grammar (4 credits)

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

Prerequisite: ENG 140 or permission of the instructor.

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ENG 382 Old English (4 credits)

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

Prerequisite: ENG 140 or permission of the instructor.

ENG 390, 391 Literary Criticism (4 credits each)

The study and history of criticism.

Prerequisite: ENG 140 or permission of the instructor.

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

Advanced topics and problems selected by the instructor.

Prerequisite: ENG 140 or permission of the instructor.

ENG 410 Imaginative Writing (4 credits)

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

Prerequisite: Permission of the instructor.

ENG 425 Melville (4 credits)

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

Prerequisite: ENG 140 or permission of the instructor.

ENG 430 Henry James (4 credits)

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

Prerequisite: ENG 140 or permission of the instructor.

ENG 439 Faulkner (4 credits)

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

Prerequisite: ENG 140 or permission of the instructor.

ENG 465 Shakespeare (4 credits)

Intensive analysis of four or five of the plays.

Prerequisite: ENG 140 or permission of the instructor.

ENG 466 Milton (4 credits)

Selected early poems, including "On the Morning of Christ's Nativity," "Comus," "Lycidas"; some of the sonnets and prose treatises; *Paradise Lost*, *Paradise Regained*, and *Samson Agonistes*.

Prerequisite: ENG 140 or permission of the instructor.

ENG 470 W. B. Yeats (4 credits)

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

Prerequisite: ENG 140 or permission of the instructor.

ENG 490 Advanced Criticism (4 credits)

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

Prerequisite: ENG 140 or permission of the instructor.

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ENG 495 Seminar: Advanced Topics in American Literature (4 credits)

Topics or problems selected by the instructor.

Prerequisite: ENG 140 or permission of the instructor.

ENG 496 Seminar: Advanced Topics in English Literature (4 credits)

Topics or problems selected by the instructor.

Prerequisite: ENG 140 or permission of the instructor.

ENG 497 Apprentice College Teaching (2 or 4 credits)

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

Prerequisite: Permission of the instructor.

ENG 499 Independent Reading (2 or 4 credits)

Directed reading or research designed exclusively for senior English majors who win the consent of an instructor. A proposal for a course of study should be submitted to an instructor in the semester preceding that in which the independent study is to be taken. May be elected on an "S" or "N" grading basis.

Prerequisite: Permission of the instructor.

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

ENG 510 Literature and Composition (4 credits)

ENG 533 Formal Analysis (4 credits)

ENG 534 Language History (4 credits)

ENG 541 Literary History (4 credits)

ENG 542 Literary History (4 credits)

ENG 561 Literary Kinds (4 credits)

ENG 562 Literary Kinds (4 credits)

ENG 600 Studies in Language and Literature (4 credits)

ENG 640 Studies in American Literature (4 credits)

ENG 641 Studies in American Literature (4 credits)

ENG 642 Studies in Old and Middle English Literature (4 credits)

ENG 643 Studies in Renaissance Literature (4 credits)

ENG 644 Studies in Eighteenth Century Literature (4 credits)

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ENG	645	Studies in Nineteenth Century Literature	(4 credits)
ENG	646	Studies in Modern Literature	(4 credits)
ENG	647	Studies in the Structure of English	(4 credits)
ENG	648	Studies in Literary Theory	(4 credits)
ENG	690	The Master's Project	(4 credits)

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DEPARTMENT OF HISTORY

Professors:	Melvin Chernow, Chairman Charles W. Akers Richard M. Brace Robert C. Howes George T. Matthews W. Patrick Strauss
Associate Professors:	V. John Barnard Leonardas V. Gerulaitis Harold Gorvine (On leave 1971-72) Harold G. Lawrence Paul M. Michaud S. Bernard Thomas Anne H. Tripp Richard P. Tucker
Assistant Professors:	De Witt S. Dykes, Jr. James D. Graham Gerald C. Heberle Joseph A. Klaitis Roy A. Kotynek Robert J. Krompart Colin A. Palmer Caleb R. Woodhouse
Instructors:	Leonard Bushkoff Mary C. Karasch Judith A. Koucky Lawrence D. Orton Carl R. Osthaus I. Michael Solomon

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

The study of history at the undergraduate level has traditionally been considered one of the major paths to informed, independent,

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

The Department of History offers a program of study leading to the degree of Bachelor of Arts. The student who majors in history should plan his or her course of study, in close consultation with a departmental adviser, following one of these advising patterns:

1. The general pattern of study, which carries few or no course recommendations, for the major who studies history without specific vocational goals.
2. The pattern for majors who wish to prepare for graduate school.
3. The pattern for majors with a concentration in area studies. See pp. 195-202.
4. The pattern for majors who wish to obtain secondary school teaching certification. This requires, in addition to meeting the requirements for the major outlined below, completion of two American history courses, ED 244 and ED 245, a minor (see pp. 233-34) and acceptance into the internship program (ED 428 and ED 455).

Students in Allport College, Charter College, and New College can complete most degree programs in history in eight semesters, but students in Allport College, Charter College, and New College who plan to complete a degree program with secondary school teaching certification should be willing to add a ninth semester in order to meet all requirements. The Department of History grants advanced placement in accordance with the University policy as explained on p. 284 of this catalog.

Requirements for the Major in History

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

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The Department has no language requirement beyond the symbolic systems requirement. (See p. 41.) Students who have completed 56 credits toward graduation will be admitted to major standing upon application to the Department.

Requirements for the Secondary Teaching Minor in History

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

Department Courses and Course Prerequisites

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

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

HST 141, 142 Introduction to European History (4 credits each)

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

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ment to the modern age of industrialism, nationalism, and global conflict. Offered each semester. Either course satisfies the Western history and philosophy Distribution Requirement.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

HST 287 surveys the European colonization of Africa, the African slave trade to the Americas, and African resistance movements to imperialism from the sixteenth century

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to just prior to the partition of the continent at the Berlin Conference. Offered in the Winter Semester.

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

An integrated series of courses offering an introduction to the institutional, intellectual, and cultural developments within the Afro-American community, with special notice given to the political, economic, and social context in which such developments occur. HST 291 surveys the Afro-American experience from the African background through the Civil War period. Offered in the Fall Semester.

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

HST 308 History of Colonial Society, 1607-1750 (4 credits)

The course of European expansion and colonization in the New World, the development of political ideas and institutions in British America, and the economic foundations and social evolution of the thirteen mainland colonies. Offered in alternate years.

HST 309 The Age of the American Revolution, (4 credits) 1750-1790

The structure of colonial society, the effects of British policy on American life, the growth of revolutionary movements, the advent of political independence, the consequences of revolution, and the adoption of the 1787 Constitution. Offered in alternate years.

HST 310 The New Republic and the Age of (4 credits) Jefferson, 1790-1825

The development of the new republic and the social, political, and philosophical impact of Thomas Jefferson on his America. Offered in alternate years.

HST 311 The Age of Jackson, 1825-1850 (4 credits)

Social and economic development, the changing nature of political parties, the material and intellectual influences shaping American democracy, westward expansion, and the sectional conflict. Offered in alternate years.

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

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

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

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

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

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

HST 315 American History since 1928 (4 credits)

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

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HST 316 American Intellectual History to 1860 (4 credits)

The intellectual and cultural history of the American people from the colonial period to the Civil War. Offered in the Fall Semester.

HST 317 American Intellectual History from 1860 (4 credits)

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

HST 318 Topics in American Social History (4 credits)

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

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

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

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

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

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

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

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

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

Prerequisite: HST 291 or HST 292.

HST 324 The Ancient Historians (4 credits)

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

HST 325 Medieval Europe (4 credits)

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

HST 326 The Italian Renaissance (4 credits)

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

HST 327 The Northern Renaissance (4 credits)

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

HST 328 Europe in the Sixteenth Century (4 credits)

A comparative analysis of European society, including such themes as the varieties

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

HST 329 Europe in the Seventeenth Century (4 credits)

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

HST 330 Medieval England (4 credits)

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

Prerequisite: HST 141 or HST 234.

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

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

Prerequisite: HST 141 or HST 234.

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

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

Prerequisite: HST 141 or HST 234.

HST 334 Victorian and Edwardian England (4 credits)

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

HST 335 Twentieth Century Britain (4 credits)

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

HST 337 Hellenic Greece (4 credits)

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

HST 339 Republican Rome (4 credits)

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

HST 340 Imperial Rome (4 credits)

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

HST 341 Europe since 1914 (4 credits)

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

HST 342 The Origins of Modern Germany (4 credits)

The ancient and medieval roots of German civilization, the political fortunes of the Holy Roman Empire and its member states, the development of the concept of German

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nationality, and the rise of the German nation-state in the nineteenth century. Offered in alternate years.

HST 343 Germany since 1870 (4 credits)

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

HST 344 Nineteenth Century Radicalism (4 credits)

Doctrines of atheists, materialists, and socialists, followed by an evaluation of revolutionary movements with anti-theological implications. Offered in alternate years.

HST 345 France since 1789 (4 credits)

The political development of modern France as a nation-state and the cultural and economic movements connected with French public life. Offered every year.

HST 346 History of European Social Classes (4 credits)

European social strata; their interrelationships; their economic, political, and cultural developments; and their transformations from the breakdown of the medieval hierarchical principle through the age of modern class conflict. Offered in alternate years.

HST 347 Tools of Historical Research (4 credits)

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

Prerequisite: Junior standing.

HST 348 Europe in the Eighteenth Century (4 credits)

A comparative analysis of European society, including such themes as the old regime in Europe, the beginnings of industrial development and the resistance to modernization, the Enlightenment as a political and social movement, reform under the monarchy and the emergence of democratic ideologies, and the onset of the French Revolution. Offered in alternate years.

HST 352 Kiev and Muscovy (4 credits)

Russian history from the ninth to the seventeenth century with emphasis on the origins of the Kievan state and society, the struggle against the steppes, and the formation of a centralized Russia under the leadership of Moscow. Offered every third year. Prerequisite: HST 251.

HST 353 Imperial Russia (4 credits)

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

Prerequisite: HST 251 or HST 252.

HST 354 Soviet Russia (4 credits)

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

Prerequisite: HST 252.

HST 355 Russian Intellectual History (4 credits)

The main developments in Russian thought during the nineteenth century, with an emphasis on the slavophiles, the westernizers, the Russian populists and socialists, and several of the great realistic writers. Offered in alternate years.

Prerequisite: HST 251 or HST 252.

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HST 357 Eastern Europe to 1815 (4 credits)

Political, social, dynastic, and religious developments among the peoples of Eastern Europe (Poles, Czechs, Slovaks, Magyars, Rumanians, Slovenes, Croats, Serbs, Bulgarians) from their origins to the Congress of Vienna. Offered in alternate years.

HST 358 Eastern Europe since 1815 (4 credits)

The emergence of nationalism and nation states, cultural expressions, social conditions, and political relations among the Eastern European nations and with their neighbors to the East and West. Offered in alternate years.

HST 365 The Response to European Colonialism (4 credits)

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

Prerequisite: UC 064 or UC 068.

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

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

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

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

Prerequisite: UC 062.

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

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

Prerequisite: UC 062.

HST 373 Nineteenth Century China (4 credits)

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

Prerequisite: UC 062.

HST 374 Nationalism and Communism in China (4 credits)

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

Prerequisite: UC 062.

HST 375 Topics in Chinese Intellectual History (4 credits)

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

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HST 377 Japan to 1800 (4 credits)

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

HST 378 Japan since 1800 (4 credits)

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

HST 380 History of Southeast Asia (4 credits)

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

HST 381 History of Early India (4 credits)

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

HST 382 Mughal and British India, 1526-1860 (4 credits)

Parallel analyses of Islamic, Hindu, and Sikh cultures in the premodern era, the Mughal empire and its regional opponents, the political fragmentation of the eighteenth century, and the social patterns which survived under the early British empire. Offered in alternate years.

HST 383 The Nationalist Era in India and Pakistan, 1860-1960 (4 credits)

Modernization in Hindu and Muslim society, Hindu nationalism and the movement to create Pakistan, the growth of regional and inter-caste conflicts, the transition from liberal to revolutionary nationalism, and the politics of independence with special consideration of Gandhi's role. Offered in the Winter Semester.

HST 386 African Socialism (4 credits)

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

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

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

HST 388 Twentieth Century Africa (4 credits)

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

Prerequisite: UC 064 or HST 287.

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

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

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

The historical, geographic, sociological, and intellectual environment reflected in the

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Bible, beginning with ancient Mesopotamian and Egyptian civilization and concluding with the Hellenistic period. Identical with CLS 396. Offered at irregular intervals.

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

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

HST 411 Senior Seminar in American History (4 credits)

Reading and research in selected topics. Offered each semester.

Prerequisites: Two courses in American history.

HST 431 Senior Seminar in British History (4 credits)

Reading and research in selected topics of British cultural, social, and political history, from the sixteenth to the twentieth century. Offered in alternate years.

Prerequisites: Two courses in British history.

HST 441 Senior Seminar in European History (4 credits)

Reading and research in selected topics. Offered each semester.

Prerequisites: Two courses in European history.

HST 481 Seminar in Historiography (4 credits)

Reading and research in topics analyzing the literature of historical inquiry and writing from the Greeks to the present. Offered irregularly.

Prerequisites: Four history courses.

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

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

Prerequisite: Permission of the instructor.

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DEPARTMENT OF LINGUISTICS

Professor:	William Schwab, Chairman (Linguistics and English)
Assistant Professors:	Peter J. Binkert (Linguistics and Classics) Daniel H. Fullmer (Linguistics and English)
Instructor:	Carl W. Johnson (Linguistics and Anthropology)
Associated Faculty	
Professor:	Donald C. Hildum (Psychology and Linguistics)
Associate Professors:	John W. Barthel (German and Linguistics) Don Iodice (French and Linguistics)
Assistant Professor:	Carlo Coppola (Hindi-Urdu and Linguistics)

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

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

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

Programs for the Liberal Arts Major in Linguistics

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

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

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

A liberal arts major in linguistics must complete two years' study, or the equivalent, of a foreign language. (In a modern language, the 114-115 sequence is required.) The language requirement may be fulfilled by course work or examination demon-

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strating proficiency in the foreign language beyond the fourth-semester level. Students for whom English is a second language may consider English as a foreign language for purposes of the language requirement.

Liberal Arts Major in Linguistics

(A Typical Program)

Semester 1

Freshman Exploratory

LIN 176

Distribution Requirement

Distribution Requirement

Semester 3

Linguistics cognate

Foreign language (114)

Distribution Requirement

Distribution Requirement

Semester 5

LIN 301

Foreign language (214)

Linguistics cognate

Elective

Semester 7

LIN 401

LIN 403

Elective

Elective

Semester 2

Freshman Exploratory

LIN 177

Distribution Requirement

Distribution Requirement

Semester 4

Linguistics cognate

Foreign language (115)

Distribution Requirement

Distribution Requirement

Semester 6

LIN 302

Foreign language (215)

Distribution Requirement

Elective

Semester 8

Senior Colloquium

LIN 404

Elective

Elective

Special Programs

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

Programs for the Concentration in Linguistics

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

MAJOR IN ANTHROPOLOGY

The linguistics concentration for the anthropology major requires:

- (a) five courses (20 credits) in linguistics, and
- (b) five courses (20 credits) in anthropology.

The courses in anthropology must include AN 101 and AN 102, and any other three courses in anthropology. The five courses in linguistics should include LIN 276, LIN 301, LIN 401, LIN 404, and one other course in linguistics.

MAJOR IN ENGLISH

The linguistics concentration for the English major requires:

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

The courses in literature must include ENG 140 and any other five courses in English literature. The five courses in linguistics should include LIN 301, LIN 302, LIN 403, LIN 404, and one elective, either in linguistics or a course in English language analysis or history, such as ENG 376 or 377.

MAJOR IN MODERN LANGUAGES (FRENCH, GERMAN, RUSSIAN, SPANISH)

The linguistics concentration for the French, German, Russian, or Spanish major requires:

- (a) five courses (20 credits) in linguistics, and
- (b) six courses (24 credits) in French, German, Russian, or Spanish language and literature beyond FRH, GRM, RUS, or SPN 215.

The modern language requirements are FRH, GRM, RUS, or SPN 261-262, 271, 272, 361, and one course at the 400 level. The five courses in linguistics should include LIN 301, LIN 302, LIN 403, LIN 404, and one elective. In addition, the modern language major

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must take FRH, GRM, RUS, or SPN 365, the applied linguistics of a particular foreign language.

MAJOR IN PHILOSOPHY

The linguistics concentration for a philosophy major requires:

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

The six courses in philosophy must include PHL 101, PHL 370, and PHL 375. The five courses in linguistics should include LIN 301, LIN 404, and three other electives in linguistics.

MAJOR IN PSYCHOLOGY

The linguistics concentration for a psychology major requires:

- (a) four courses (16 credits) in linguistics, and
- (b) six courses (24 credits) in psychology.

Five of the six psychology courses must be PSY 146, PSY 231, PSY 351 or 352, PSY 353, and PSY 435. Arrangements may be made for a psycholinguistics major to substitute a linguistics or other cognate course for the unspecified sixth psychology course. The linguistics courses should be LIN 301, LIN 302, LIN 403, LIN 404.

LIN 176 The Nature of Language: Its Humanity (4 credits)

An introduction to language as a conceptual system and the interrelationships of language and other cultural subsystems; social dialectology and lexicography; non-systematic semantics, writing systems, and other topics related to the nature of language are examined.

LIN 177 The Nature of Language: Its Theory (4 credits)

An introduction to phonological, syntactic, and semantic systems; geographical dialects; the history of language; language acquisition and language universals.

LIN 200 Topics in Linguistics (4 credits)

Topics and problems selected by the instructor.

LIN 276 Language in Culture (4 credits)

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

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

LIN 277 Sound Patterns of American English (4 credits)

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

LIN 301 Linguistic Structures (4 credits)

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

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LIN 302 Historical Linguistics (4 credits)

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

Prerequisite: LIN 301 or equivalent.

LIN 365 Applied Linguistics (4 credits)

A series of sections in French, German, Russian, and Spanish are offered in this course. Identical with FRH, GRM, RUS, and SPN 365.

Prerequisite: LANG 262 or permission of the instructor.

LIN 401 Phonetics (4 credits)

An introduction to articulatory and acoustic descriptions of spoken language, and training in the recognition and production of sounds found in languages other than English.

Prerequisite: LIN 301.

LIN 403 Phonology (4 credits)

A presentation of theory and application of phonological analyses with emphasis on original work.

Prerequisite: LIN 301.

LIN 404 Grammatical Analysis (4 credits)

A presentation of theory and application of morphological and syntactical analyses, with emphasis on original work.

Prerequisite: LIN 301.

LIN 407 Semantic Theory (4 credits)

An inquiry into contemporary efforts, since the publication of Chomsky's *Syntactic Structures*, to formulate and articulate a theory of meaning adequate for the analysis of natural language, with emphasis on the relation between syntactic and semantic analysis.

Prerequisites: LIN 301 and one of either LIN 404 or PHL 370 or PHL 375.

LIN 410 Studies in the Structure of a Language (4 credits)

A study of the structural aspects of an individual language to be determined by the instructor. Among the languages for study are French, German, Hindi-Urdu, Sanskrit.

Prerequisite: LIN 301 or permission of the instructor.

LIN 428 The Teaching of English as a Foreign Language (4 credits)

A study of modern techniques of teaching pronunciation, grammar, and vocabulary. The preparation and use of language tests: laboratory techniques.

Prerequisite: LIN 301 or permission of the instructor.

LIN 480 Seminar in Linguistics (4 credits)

Topics and problems selected by the instructor.

Prerequisites: LIN 301 and two LIN courses above 301, or permission of the instructor.

LIN 490 Independent Study (4 credits)

Special research projects in linguistics.

Prerequisite: Permission of the Department of Linguistics.

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DEPARTMENT OF MATHEMATICS

Professors:	Harvey J. Arnold, Acting Chairman Louis R. Bragg John W. Dettman George F. Feeman William C. Hoffman G. Philip Johnson James H. McKay Harvey A. Smith
Associate Professors:	Ronald A. DeVore Donald G. Malm
Assistant Professors:	J. Curtis Chipman Jon Froemke Louis J. Nachman Irwin Schochetman Yel-Chiang Wu Avigdor Zaromp
Instructor:	Marion Orton

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 University Course Program 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 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

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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.

Requirements for the Liberal Arts Major in Mathematics

Nine courses (36 credits) in mathematics are required, among which must be MTH 351 or MTH 451 and MTH 375 or MTH 475. (Only MTH 154, 155, 254, and courses with MTH 254 as 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.) 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 two-course 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.

Many paths other than graduate study in mathematics are open to the graduate with a liberal arts major in mathematics. These include graduate study in related fields (engineering, physics, management science, statistics, the social or biological sciences, etc.) and employment in government or industry. Entry into these careers and success in them can be aided greatly by the proper choice of electives, both in mathematics and related disciplines. (Typical mathematics courses facilitating entry into such careers are MTH 325-326, 335-336, 352, 425, 431, 435, 465.) Students who are interested in such possibilities are urged to consult members of the Department of Mathematics for guidance early in their courses of study. A sampling of typical programs is available from the Department office.

Students who are planning to do graduate work in mathematics should be aware that many graduate programs require reading knowledge of at least one foreign language for study beyond the master's degree level; it is important that such students include language study in their undergraduate program.

Admission to major standing in mathematics requires four courses (16 credits) in mathematics, among which MTH 255 must be included.

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Requirements for the Secondary Teaching Major in Mathematics

Nine courses (36 credits) in mathematics are required. These must consist of MTH 154, 155, 254, 255, 351 or 451, 375 or 475, 361, at least one of MTH 325 or 335, and one appropriate additional course numbered 325 or above. (Only those courses which satisfy the liberal arts major in mathematics may be used to satisfy this requirement.) The two Freshman Exploratories and the Senior Colloquium may, if properly selected, substitute for three of the Distribution Requirements; appropriate selections should be determined in consultation with the student's academic adviser. Two courses in science (8 credits) are required. A minor of five or six courses (20 or 24 credits) is also required. If the minor is taken in one department, five courses (20 credits) are required; if the minor is taken in an area, such as science or social science, six courses (24 credits) are required. (See pp. 233-34 for details.) A science minor is recommended, but other minors are permissible. If the minor is in science, the courses may be used simultaneously to satisfy the two-course requirement in science. Finally, four courses (20 credits) in education (ED 244, 245, 428, and 455) are required. Admission to major standing requires four courses (16 credits) in mathematics, including MTH 255, and concurrent acceptance into the Teacher Education Program.

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.)

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.

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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 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 to statistics. Offered on sufficient demand.

Prerequisites: Three years of high school mathematics.

MTH 132-133 Precalculus (4 credits each)

A year-long study of the material needed as a prerequisite to MTH 154-155. Topics covered include basic algebra and geometry, linear equations, polynomials, exponential and logarithmic functions, the trigonometric functions, and selected topics from analytic geometry. Credit cannot be earned for both MTH 133 and MTH 134. MTH 132 is offered in the Fall Semester; MTH 133 is offered in the Winter Semester. Both courses are graded "S" or "N."

Prerequisite: Permission of the Department.

MTH 134 Precalculus (4 credits)

A one-semester course covering the 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.

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Credit cannot be earned for both MTH 133 and MTH 134. Offered in both the Fall and Winter Semesters. The course is graded "S" or "N."

Prerequisites: 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.

Prerequisite: 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 (4 credits) **Algebra**

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

Prerequisite: MTH 155.

MTH 255 Intermediate Calculus (4 credits)

A study of infinite series, multiple integration, differential calculus of scalar and vector fields, line and surface integrals. Offered in the Fall and Winter Semesters.

Prerequisite: MTH 254.

MTH 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.

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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.

Prerequisite: 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.

MTH 335-336 Introduction to Numerical Analysis (4 credits each)

An introduction to mathematical methods appropriate to computer work. Topics treated include interpolation, approximation, quadrature, solution of differential equations, and matrix computation. MTH 335 is offered every year; MTH 336 is offered every other year.

Prerequisites: MTH 254 for 335; MTH 255 for 336.

MTH 351 Introduction to Analysis (4 credits)

A development of the properties of functions of one real variable, including a study of sequences, limits, continuity, differentiation, and integration. Offered in the Fall Semester.

Prerequisite: MTH 254.

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MTH 352 Complex Variables (4 credits)

Analytic functions, integral theorems, series expansions, and theory of residues. Offered every year.

Prerequisite: MTH 255.

MTH 361 Geometric Structures (4 credits)

A study of topics from Euclidean geometry, projective geometry, non-Euclidean geometry, and transformation geometry. Offered in the Winter Semester.

Prerequisite: MTH 254.

MTH 372 Number Theory (4 credits)

Number-theoretic functions, diophantine equations, congruences, and quadratic residues. Offered every year.

Prerequisite: MTH 254.

MTH 375 Introduction to Abstract Algebra (4 credits)

An introduction to the basic concepts of abstract algebra, including groups, rings, and fields. Offered in the Winter Semester.

Prerequisite: MTH 254.

MTH 405 Special Topics (2 or 4 credits)

Advanced study of some topic in mathematics. May be taken more than once.

Prerequisite: Permission of the Department.

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.

Prerequisite: 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 425 Probability (4 credits)

Combinatorial analysis, conditional probability, random variables, generating functions, recurrent events, random walk problems, Markov chains, and stochastic processes.

Prerequisite: 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 $\mathbb{R}^n$,

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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.

Prerequisite: MTH 351 or MTH 451 or permission of the Department.

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 511 Mathematics for the Elementary School Teacher I (4 credits)

Study of the structure of the real number system, elementary number theory, introduction to abstract mathematical structures.

Prerequisite: Permission of the Department.

MTH 512 Mathematics for the Elementary School Teacher II (4 credits)

Study of set theory, logic, probability theory, statistics, and topics in geometry.

Prerequisite: Permission of the Department.

MTH 513 Topics in Elementary School Mathematics (4 credits)

Topics in elementary mathematics selected in keeping with the latest trends in elementary school curriculum reform. Methods of teaching these topics are studied simultaneously with the topics themselves for the purpose of creating appropriate curriculum and testing materials.

Prerequisites: MTH 314, 315, and 316 or MTH 511 and 512 or permission of the Department.

MTH 514-515 Concepts in Abstract Algebra (4 credits each)

Designed for Master of Arts in Teaching candidates. Includes topics from groups, rings, fields, matrices, linear transformations, and vector spaces. Offered every other

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year. Alternates with MTH 517-518.

Prerequisite: Permission of the Department.

MTH 517-518 Concepts in Analysis (4 credits each)

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 514-515.

Prerequisite: Permission of the Department.

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

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

Prerequisite: Permission of the Department.

MTH 531 Mathematical Methods in Engineering I (4 credits)

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

Prerequisite: Permission of the Department.

MTH 532 Mathematical Methods in Engineering II (4 credits)

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

Prerequisite: Permission of the Department.

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

Structure of dynamical systems. Application to mechanics, wave motion, diffusion, and statistical mechanics. Dynamical systems and control theory in economics and the life sciences. Fundamental mathematical structures of the physical, life, and social sciences. The role of probability and statistical inference.

Prerequisite: 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.

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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.

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DEPARTMENT OF MODERN LANGUAGES AND LITERATURES

Professors: Norman Susskind (French), Chairman
Carmine R. Linsalata (Spanish)
Richard A. Mazzara (French),
Head, French Section
Jack R. Moeller (German),
Head, German and Russian Section
Robert E. Simmons (German)
Amitendranath Tagore (Chinese),
Head, Asian Section

Associate Professors: John W. Barthel (German)
William C. Bryant (Spanish)
Dolores M. Burdick (French)
Alfred J. DuBruck (French)
Dmytro Ijewliw (Russian)
Don R. Iodice (French)
Helen Kovach (Russian)
Kathryn M. McArdle (Spanish)
Munibur Rahman (Hindi-Urdu)

Assistant Professors: Carlo Coppola (Hindi-Urdu)
Renate Gerulaitis (German)
John Marney (Chinese)
Jordan B. Phillips (Spanish)

Instructors: Norman M. Brown (German)
Jerry M. Freeman (Russian)
Reiner M. Guertler (German)
William D. Jaymes (French)
Roy I. Madsen (French)
John A. McCarthy (German)
Monique B. Pitts (French)
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)
Carmen M. Urla (Spanish),
Head, Spanish Section

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The aim of the modern language curriculum is to help students acquire competence in the language of a given country and, through the study of its literature and civilization, to acquaint them with the cultural background of that country. 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 competence in a foreign language with that in their field of specialization. This is especially true for students interested in area studies, scientific research, employment with corporations having subsidiaries abroad, government work (the State Department, the United States Information Services, the consular service, the Central Intelligence Agency, economic and technical aid programs abroad, the Peace Corps), in interpreting, missionary work, or journalism. Today the thorough knowledge of a foreign language has as much practical as intellectual validity. 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 where students may prepare assignments, catch up in case of absence, review, work ahead, or listen to recordings of plays, poems, songs, etc. Most intermediate and advanced courses which carry major credit are conducted in the language concerned, for all courses are designed to improve a student's proficiency in a particular language. In French, Spanish, and German 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 a 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 in great demand but 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.

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Proficiency Examinations and Placement

Two language tests are administered by the Department. The Modern Language Aptitude Test is designed to indicate general ability in the aural and grammatical areas. 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 in language courses at a level commensurate with the student's ability.

General Education Requirement

Majors in all programs of the Department of Modern Languages and Literatures may satisfy the general education requirement in the University Course Program or in the programs of Allport College, Charter College, or New College.

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 261-262 and Introduction to Literature 271, 272 (both 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

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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.

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

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 pp. 121-22.

Requirements for the Liberal Arts Major in Chinese Language and Civilization

The requirement in Chinese for this major is eight courses (36 credits), ordinarily CHE 114-115, 214-215, and four others selected from departmental offerings in consultation with an adviser. Five China area courses (20 credits) beyond UC 062 and including 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. 195-97 of this catalog. Requirements for admission to major standing and exceptions to the language course requirements are the same as those stated above for the liberal arts major in a modern language.

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

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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 admission to major standing and exceptions to the language course requirements are the same as those stated above for the liberal arts major in a modern language.

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. 199-200 of this catalog. Requirements for admission to major standing and exceptions to the language course requirements are the same as those stated above for the liberal arts major in modern language.

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 261-262 and Introduction to Literature 271, 272 (both sequences may be taken concurrently), 361, 365, and two 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 admission to major standing and exceptions to the language course requirements are the same as those stated above for a liberal arts major, acceptance by the Department of

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Modern Languages and Literatures, and concurrent acceptance into the Teacher Education Program.

**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 261-262 and Advanced Composition and Conversation 361. The fourth course usually recommended is 365, but 271 or 272 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. 234-37.

Liberal Arts Major in Modern Language¹

(A Typical Program)

Semester 1
Freshman Exploratory
LANG 214
Distribution Requirement
Distribution Requirement

Semester 3
LANG 261
LANG 271
Elective
Distribution Requirement

Semester 5
Major
Elective
Elective
Distribution Requirement

Semester 7
Major
Elective
Elective
Distribution Requirement

Semester 2
Freshman Exploratory
LANG 215
Distribution Requirement
Distribution Requirement

Semester 4
LANG 262
LANG 272
Elective
Distribution Requirement

Semester 6
Major
Elective
Elective
Distribution Requirement

Semester 8
FRH or SPN 485
Major
Elective
Senior Colloquium

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Secondary Teaching Major in Modern Language¹

(A Typical Program)

Semester 1

Freshman Exploratory
LANG 214
UC 054
Distribution Requirement

Semester 3

LANG 261
LANG 271
ED 244
Distribution Requirement

Semester 5

LANG 361
Elective
Elective
Distribution Requirement

Semester 7

Major
Senior Colloquium
ED 428
Elective

Semester 2

Freshman Exploratory
LANG 215
Elective
Distribution Requirement

Semester 4

LANG 262
LANG 272
ED 245
Distribution Requirement

Semester 6

LANG 365
Elective
Elective
Distribution Requirement

Semester 8

FRH or SPN 485
ED 455

¹It is desirable that prospective majors have completed, wherever possible, at least two years of a single language in high school and begin University language work at the second-year level.

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.

Prerequisite: 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.

Prerequisite: 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

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century political leaders of China.

Prerequisite: CHE 215 or permission of the instructor.

CHE 340 Twentieth Century Chinese Literature (4 credits)

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

Prerequisite: 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.

Prerequisite: CHE 310, or CHE 320, or permission of the instructor.

CHE 420 Chinese Classics and Philosophers (4 credits)

Studies of texts in advanced literary Chinese of Lao Tzu, Chuang Tzu, and others.

Prerequisite: CHE 310, or CHE 320, or permission of the instructor.

CHE 430 Chinese Historical Writings (4 credits)

Literary texts of ancient Chinese historiography.

Prerequisite: CHE 310, or CHE 320, 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.

Prerequisite: 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

Courses numbered 100-299 are offered in sequence Fall and Winter, depending on demand and staff.

FRH 101-102 Elementary Reading in French (4 credits each)

A self-taught programmed course emphasizing the reading skill only. No oral or written work is involved. Successful completion of all unit tests (multiple-choice format) should insure reading ability commensurate with two semesters of elementary French and enable the student to enter second-year reading courses. 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.

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

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FRH 214-215 Second Year French (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.

Prerequisite: FRH 115 or an appropriate placement examination score.

FRH 251 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.

Prerequisite: FRH 215 or an appropriate placement examination score.

FRH 261-262 French Composition and Conversation (4 credits each)

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

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

FRH 271, 272 Introduction to French Literature (4 credits each)

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

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

FRH 285, 286 Main Currents of French Thought and Literature (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.

Prerequisite: 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.

Prerequisite: 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.

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

Courses numbered 300-399 are offered annually, depending on demand and staff.

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FRH 361 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 262.

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.

Prerequisite: FRH 262 or permission of the instructor.

Courses numbered 400 are offered in alternate years, depending on demand and staff.

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 272.

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 272.

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 272.

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,

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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 272.

FRH 451 Twentieth Century French Novel (4 credits)

Developments in the novel since the turn of the century. Primarily a study of Proust, Gide, Mauriac, Malraux, Camus, Sartre, and representative authors of the new school. Conducted in French.

Prerequisite: FRH 272.

FRH 452 Twentieth Century French Theatre (4 credits)

Drama since the *Théâtre Libre*. Theatrical innovations and reforms of Copeau, Juvet, 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 272.

FRH 453 Modern French Poetry (4 credits)

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

Prerequisite: FRH 272.

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

Courses numbered 100-299 are offered in sequence Fall and Winter, depending on demand and staff.

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

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

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

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

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GRM 201-202 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.

Prerequisite: 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.

Prerequisite: GRM 115 or an appropriate placement examination score.

GRM 261-262 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.

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

GRM 271, 272 Introduction to German Literature **(4 credits each)**

GRM 271 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 272 is devoted to analyses and survey of twentieth century 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.

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

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.

Prerequisite: 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.

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

Courses numbered 300-399 are offered annually, depending on demand and staff.

GRM 361 Advanced Composition and Conversation **(4 credits)**

Intensive oral work designed to perfect conversational ability, with emphasis on

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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 262.

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.

Prerequisite: GRM 262 or permission of the instructor.

Courses numbered 400 are offered in alternate years, depending on demand and staff.

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 272.

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 272.

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 272.

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 272.

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.

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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.

Hindi-Urdu Language

Courses numbered 100-299 are offered in sequence Fall and Winter, depending on demand and staff.

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.

Portuguese Language

Courses numbered 100-299 are offered in sequence Fall and Winter, depending on demand and staff.

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.

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

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Russian Language and Literature

Courses numbered 100-299 are offered in sequence Fall and Winter, depending on demand and staff.

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 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 261-262 Russian Composition and Conversation (4 credits each)

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

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

RUS 271, 272 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 285, 286 Survey of Russian Literature (4 credits each)

RUS 285 covers Russian literature from the beginning to 1880 and emphasizes the realistic novel.

RUS 286 deals with the period from 1880 to the present and mainly is concerned with Soviet literature. Lectures and readings in English. Either course may be taken independently of the other. Open to Russian majors as elective only; does not carry credit toward departmental major.

Prerequisite: 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.

Prerequisite: RUS 215 or permission of the Department.

RUS 361-362 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 361 is recommended for elementary teaching majors and is required for secondary teaching majors. RUS 361-362 is required for Russian majors in liberal arts. Offered in the Fall and Winter Semesters.

Prerequisite: RUS 262.

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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.

Prerequisite: RUS 262 or permission of the instructor.

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.

Prerequisite: RUS 272, or RUS 362, 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 272.

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 272.

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 272.

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 272.

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 272.

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 272.

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 272.

RUS 480 Seminar in Russian Literature (4 credits)

Intensive investigation of some aspect of Russian literature. Offered in alternate years.

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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

Courses numbered 100-299 are offered in sequence Fall and Winter, depending on demand and staff.

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.

Prerequisite: 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.

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

SPN 261-262 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.

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

SPN 271, 272 Introduction to Spanish Literature (4 credits each)

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

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

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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.

Prerequisite: 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.

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

Courses numbered 300-399 are offered annually, depending on demand and staff.

SPN 361 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 262.

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.

Prerequisite: SPN 262 or permission of the instructor.

Courses numbered 400 are offered in alternate years, depending on demand and staff.

SPN 401 Literature of the Spanish Middle Ages and Renaissance (4 credits)

Masterworks of the period.

Prerequisite: SPN 272.

SPN 412 The Quixote (4 credits)

Detailed study of Cervantes' masterwork.

Prerequisite: SPN 272.

SPN 424 The Golden Age (4 credits)

Masterpieces of Spanish literature of the period.

Prerequisite: SPN 272.

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SPN 433 Spanish Literature of the Eighteenth and Nineteenth Centuries (4 credits)

Masterworks of the period in peninsular literature.

Prerequisite: SPN 272.

SPN 462 Spanish American Literature I (4 credits)

Masterworks of Spanish American literature through the nineteenth century.

Prerequisite: SPN 272.

SPN 463 Spanish American Literature II (4 credits)

Masterworks of twentieth century Spanish American literature.

Prerequisite: SPN 272.

SPN 472 Twentieth Century Spanish Literature (4 credits)

Masterworks of the period in peninsular literature.

Prerequisite: SPN 272.

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 272.

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.

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

Courses numbered 100-299 are offered in sequence Fall and Winter, depending on demand and staff.

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.

Prerequisite: SWA 114-115 or permission of the instructor.

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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.

Prerequisite: 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.

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DEPARTMENT OF MUSIC

Professor:	Walter S. Collins
Associate Professors:	David Di Chiera, Chairman Raynold L. Allvin Robert I. Facko
Assistant Professors:	David W. Daniels John N. Dovaras Lyle E. Nordstrom
Instructor:	Clifford I. Pfeil
Special Instructor:	Alice Engram
Lecturers:	Richard Conrad Josephine H. Love Russell Reed
Applied Music Instructors:	Arthur Bachmann (cello) Thomas Bacon (French horn) Vivian Scott Carson (piano) Herbert Couf (saxophone) Robert Cowart (oboe) Joe Fava (guitar) LeRoy Fenstermacher (viola) Robert Gladstone (string bass) Oliver Green (clarinet) Elsie Inselman (voice) Frank Kaderabek (trumpet) Kent McDonald (piano/organ) Ervin Monroe (flute) Emilia Cundari (voice) Frank Preuss (violin) Salvatore Rabbio (percussion) Dennis Smith (trombone) Evelyn Sun (piano) Delano Wise (tuba)

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. Requirements and means of study are presently being revised, and new degree programs are being formulated. All programs in the Department of Music now lead to the degree of Bachelor of Arts. For more current information consult the *Music Handbook*, which is available upon

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request from the music department. Because of the changes under way, it is absolutely necessary to consult with a departmental adviser before beginning a music degree program. All new and transfer students are expected to audition upon registration 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 courses 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 studying individually, or by combining course study with individual study.

To help students plan their courses 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 and other University requirements for graduation see pp. 37-54.

Required Certificates

The following certificates are required of all music majors:

1. *Basic Materials of Music.* Knowledge of clefs, scales, key signatures, meters, and the like. To be taken the first semester.
2. *Theory.* Analysis and composition of music of several periods. To be taken after about two years of study.
3. *Ear Training.* Skills involving aural recognition and identification of musical elements. To be taken as soon as possible, normally after about two years of study.
4. *Performance.* Competence in a performing medium, public performances, and membership in ensembles. Accumulated over the four years of the music program.
5. *Music History and Literature.* General grasp of music history as well as a deeper knowledge of some particular specialty. To be taken in the fourth year of study.

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Those wishing a more thorough and professional training (in preparation for a teaching career or for graduate study in music, for example) are required to add a minor performing medium to their performance certificate and to earn the following additional certificates:

6. *Keyboard Proficiency*. Basic keyboard skills. To be taken within the first two years of study.
7. and 8. Two elective certificates as described below.

Elective Certificates

By concentrating study in certain areas students may prepare for elective certificates in subjects of their own choosing, such as music education, advanced theory and composition, advanced music history, orchestral 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.

For further information on all certificates, and for details regarding ensemble requirements and a foreign language requirement, consult the *Music Handbook* available from the Department of Music on request.

Requirements for a Teaching Major in Music

Students will normally be certified for both elementary and secondary teaching. They must complete the required certificates and two elective certificates of which at least one must be in music education, either instrumental or vocal.

To acquire the certificate in instrumental music education, the student will need to demonstrate knowledge and skills comparable to MUS 380, MUS 381, MUS 382, MUS 401, MUS 404, and a high level of proficiency on an instrument.

To acquire the certificate in vocal music education, the student will need to demonstrate knowledge and skills comparable to MUS 401, MUS 402, MUS 403 and a high level of proficiency in voice and choral techniques.

The following education courses (20 credits) are required: ED 244, ED 245, ED 428, and ED 455. Admission to major standing requires acceptance by the Department of Music and concurrent acceptance into the Teacher Education Program.

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MUS 101	University Chorus	(1 credit)
MUS 102	Oakland Singers	(1 credit)
MUS 103	Collegium Musicum	(1 credit)
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 credit)
MUS 105	Opera Workshop	(1 credit)
MUS 106	University Orchestra	(1 credit)
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 149	Music as an Art and as an Elementary School Subject	(5 credits)
An introduction to the techniques of listening to music and of teaching music in the elementary school. Begins at a level for the student lacking previous musical experience. Substitutes for UC 049 for general elementary education majors.		
*MUS 160	Voice	(2 credits)
*MUS 161	Piano	(2 credits)
*MUS 162	Organ	(2 credits)
*MUS 163	Harpsichord	(2 credits)
*MUS 164	Violin	(2 credits)
*MUS 165	Viola	(2 credits)
*MUS 166	Violoncello	(2 credits)
*MUS 167	String Bass	(2 credits)
*MUS 168	Flute	(2 credits)
*MUS 169	Oboe	(2 credits)
*MUS 170	Clarinet	(2 credits)
*MUS 171	Bassoon	(2 credits)
*MUS 172	French Horn	(2 credits)
*MUS 173	Trumpet	(2 credits)
*MUS 174	Trombone	(2 credits)
*MUS 175	Tuba	(2 credits)

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

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

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

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

MUS 310 Harmony (4 credits)

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

Prerequisite: 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.

Prerequisite: MUS 210 or permission of the instructor.

MUS 315 Tonal Counterpoint (4 credits)

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

Prerequisite: 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.

Prerequisite: 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.

Prerequisite: MUS 210 or permission of the instructor.

MUS 331 Opera and Music Drama (4 credits)

A study of music drama from the lyric drama of the ancient Greeks to the present. Suggested as an elective for non-music majors.

Prerequisite: MUS 210 or permission of the instructor.

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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.

Prerequisite: 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.

Prerequisite: 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.

Prerequisite: 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.

Prerequisite: 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 credit)

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.

MUS 380 Instrumental Methods (Strings) (2 credits)

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

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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.

Prerequisite: 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.

Prerequisite: Either MUS 310, 314, or 315.

MUS 412 Twentieth Century Techniques (4 credits)

Compositional practices in the twentieth century; composition and analysis.

Prerequisite: Either MUS 310, 314, or 315.

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MUS 415 Modal Counterpoint (4 credits)

The contrapuntal style of the sixteenth century. Analysis and composition in this style. Offered in alternate years.

Prerequisite: 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.

Prerequisite: 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, 3, or 4 credits)

Prerequisite: Permission of the Department.

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DEPARTMENT OF PHILOSOPHY

Associate Professors:	Richard J. Burke, Chairman Richard W. Brooks (On leave Fall, 1971) Alfred Lessing
Assistant Professor:	Rosalyn S. Sherman
Instructors:	Jack A. Cumbee John Immerwahr Julian Weitzenfeld
Lecturer:	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 in the University Course Program 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 University 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-

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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. 195-98.

Requirements for the Major in Philosophy with Concentration in Linguistics

Six departmental courses (24 credits) are required, including

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PHL 101, PHL 370, and PHL 375. For requirements in linguistics, see p. 122.

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.

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.

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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.

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.

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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.

Prerequisite: PHL 101.

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 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.

DEPARTMENT OF PHYSICS

Professors:	Ralph C. Mobley, Chairman Robert M. Williamson
Associate Professors:	John M. McKinley Norman Tepley Paul A. Tipler
Assistant Professors:	Granvil C. Kyker, Jr. Marshall J. Sheinblatt W. Donald Wallace

The Department of Physics offers a comprehensive program in basic physics leading to the degree of Bachelor of Science. The curriculum provides a solid foundation in both classical and modern physics. Physics majors with the degree of Bachelor of Science are qualified for graduate work in physics and related subjects, for research positions in government and industrial laboratories, or with additional courses in education, for secondary school teaching.

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*.

With respect to the undergraduate program, it should be noted that the University Course Program has been modified for the Department of Physics so that the two Freshman Exploratories and the Senior Colloquium can, if properly selected, substitute for three of the Distribution Requirements. Appropriate selections should be determined in consultation with the academic adviser.

Typically, majors in the Department of Physics meet their general education requirement by participating in the University Course Program. Under certain circumstances, they may complete this requirement in Allport College, in Charter College, or in New College, but it is critical that they should first consult with a departmental adviser so that their graduation date will not be affected.

The departmental requirements for the Bachelor of Science major in physics and for the secondary teaching major in physics satisfy the University requirement in symbolic systems.

Requirements for the Bachelor of Science Major in Physics

- (a) PHY 151-152, 158, 317-318, 331, 341, 347-348, 361, 371, 381, 400 (2 credits); nine courses, five laboratories; 40 credits.

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- (b) CHM 114-115, 117; two courses, one laboratory; 9 credits.
- (c) MTH 154-155, 254-255; four courses; 16 credits.
- (d) Seven general education courses; 28 credits.
- (e) Completion of 2 credits of computer programming.¹

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

Requirements for the Secondary Teaching Major in Physics

- (a) PHY 151-152, 158, 317, 331, 341, 347-348, 361, 371, 381, 400; eight courses, four laboratories; 37 credits.
- (b) CHM 114-115, 117; two courses, one laboratory; 9 credits.
- (c) MTH 154-155, 254-255; four courses; 16 credits.
- (d) Seven general education courses; 28 credits.
- (e) ED 244, 245, 428, 455; four courses; 20 credits.
- (f) Completion of 2 credits of computer programming.¹
- (g) A minor. If the minor is in one department, 20 credits are required; otherwise 24 credits are required. See pp. 233-34 for details. A mathematics minor is recommended.

Admission to major standing requires 14 credits in physics, 8 credits in chemistry, 8 credits in mathematics, and acceptance into the Teacher Education Program.

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

Freshman Exploratory**

Distribution Requirement**

Fall

Semester 3

PHY 152

PHY 158

MTH 254

Computer Programming (2 credits)¹

Distribution Requirement**

Winter

Semester 2

PHY 151

CHM 115

CHM 118*

MTH 155

Freshman Exploratory**

Winter

Semester 4

PHY 341

PHY 347

PHY 361

MTH 255

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Fall

Semester 5

PHY 317

PHY 331

PHY 348

PHY 371

Distribution Requirement**

Fall

Semester 7

PHY 400

PHY 421*

PHY 472*

PHY 490*

Elective

Winter

Semester 6

PHY 318

PHY 381

MTH 431*

Distribution Requirement**

Elective

Winter

Semester 8

PHY 400

PHY 490*

PHY 482*

Senior Colloquium**

Elective

*Courses so designated are not required for a major in physics; they are recommended electives for students planning graduate work in physics.

Students not planning graduate work should defer either PHY 331 or 371 until Semester 7, replacing PHY 472. It is further recommended that MTH 255 be deferred from Semester 4 to Semester 8, replacing PHY 482.

**General Education Requirements—Seven University Courses (or acceptable departmental equivalents) (28 credits) distributed as follows: Western history and philosophy, 4 credits; literature, 4 credits; art or music, 4 credits; social sciences, 8 credits; area studies, 4 credits; and one other 4-credit University Course. These courses must include two Freshman Exploratories and one Senior Colloquium.

¹Computer programming (2 credits), EGR 180 or equivalent.

Secondary Teaching Major in Physics

(A Typical Program)

Fall

Semester 1

CHM 114

CHM 117

MTH 154

Freshman Exploratory**

Distribution Requirement**

Fall

Semester 3

PHY 152

PHY 158

MTH 254

Distribution Requirement**

Computer Programming (2 credits)¹

Fall

Semester 5

PHY 317

Winter

Semester 2

PHY 151

CHM 115

CHM 118*

MTH 155

Freshman Exploratory**

Winter

Semester 4

PHY 341

PHY 347

PHY 361

MTH 255

Distribution Requirement**

Winter

Semester 6

PHY 318*

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PHY 331
PHY 348
ED 244
Distribution Requirement**

Fall

Semester 7

PHY 371
PHY 400
PHY 421*
Senior Colloquium**
Elective

PHY 381
ED 245
Elective
Elective

Winter

Semester 8

ED 428
ED 455

*Courses so designated are not required for a teaching major in physics but are strongly recommended.

**General Education Requirements—Seven University Courses (or acceptable departmental equivalents) (28 credits) distributed as follows: Western history and philosophy, 4 credits; literature, 4 credits; art or music, 4 credits; social sciences, 8 credits; area studies, 4 credits; and one other 4-credit University course. These courses must include two Freshman Exploratories and one Senior Colloquium.

¹Computer programming (2 credits), EGR 180 or equivalent.

The following two-semester course, PHY 101-102, is open to all students and may be used by non-science majors to fulfill the science Distribution Requirement.

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.

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

Prerequisite 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 science Distribution Requirement.

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 robot 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.

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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 125.

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)
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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, 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)

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

Prerequisite: Permission of the Department.

PHY 417-418 Advanced Laboratory (2 credits each)

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

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

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

PHY 421 Thermodynamics (4 credits)

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

Prerequisites: PHY 151, MTH 254.

PHY 472 Quantum Mechanics I (4 credits)

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

Prerequisites: PHY 361, MTH 255.

PHY 482 Electricity and Magnetism II (4 credits)

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

Prerequisites: PHY 381, MTH 255.

PHY 490 Independent Study and Research (2, 4, 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, including the periodic structure, lattice dynamics, electron interactions and behavior, transport

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properties, the Fermi surface and optical behavior, superconductivity, with emphasis on current experimental techniques.
Prerequisite: PHY 472 or equivalent.

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

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

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DEPARTMENT OF POLITICAL SCIENCE

Professors:	Edward J. Heubel, Chairman Sheldon L. Appleton Roger H. Marz John E. Rue Carl R. Vann (On leave 1971-72)
Associate Professors:	Thomas W. Casstevens William F. Sturner
Assistant Professors:	Irvin H. Bromall Henry J. Kennedy James R. Ozinga
Instructors:	C. Vernon Gray William D. Ice Arthur W. Wild

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 included in these courses. The most general educational aim is to increase the students' awareness and deepen their understanding of the realm of politics and government. Students in this Department often wish to prepare for careers in civil service, law, practical politics, and the teaching of government and social studies. The liberal arts major in political science provides undergraduate study appropriate to most of these careers; the social studies major (see pp. 202-3) permits the prospective secondary teacher to concentrate on political science courses.

The Department of Political Science offers programs of study leading to the degree of Bachelor of Arts with a liberal arts major in political science. This major may be taken with a concentration in area studies.

Departmental honors are conferred upon graduates who successfully complete a PS 490 research project and paper at the honors level during their senior year.

Requirements for the Liberal Arts Major in Political Science

The major requires nine courses (36 credits) in political science

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including UC 052, PS 131, and PS 221 or PS 222. These courses are offered every Fall and Winter Semester. Admission to major standing requires successful completion of these three courses. Majors in the Department of Political Science may complete their general education requirement in the University Course Program or in the programs of Allport College, Charter College, or New College.

The Department accepts all options open to students for fulfillment of the University symbolic systems requirement.

Liberal Arts Major in Political Science

(A Typical Program)

Semester 1

Freshman Exploratory
UC 052
Distribution Requirement
Symbolic Systems

Semester 3

PS 221 or PS 222
Distribution Requirement
Distribution Requirement
Elective

Semester 5

Political Science
Political Science
Distribution Requirement
Elective

Semester 7

Political Science
Elective
Elective
Elective

Semester 2

Freshman Exploratory
PS 131
Distribution Requirement
Symbolic Systems

Semester 4

Political Science
Distribution Requirement
Distribution Requirement
Elective

Semester 6

Political Science
Political Science
Elective
Distribution Requirement

Semester 8

Senior Colloquium
Elective
Elective
Elective

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.

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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.

Prerequisite: UC 052.

PS 213 World 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.

Prerequisite: UC 052.

PS 221 Systematic Political Analysis (4 credits)

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

Prerequisite: Sophomore standing.

PS 222 Measurement and Methodology (4 credits)

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

Prerequisite: Sophomore standing.

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: UC 052.

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: UC 052.

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: UC 052 or permission of the instructor.

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

A study of the important texts in political thought, focusing on critical moments in the Western tradition, and including questions raised by the decline of Athenian democracy, the dawn of modern liberalism, the rise of democratic capitalism, and the emergence of challenges to liberal democracy, such as romanticism, Marxism, and some varieties of modern relativism. Not offered on any set schedule.

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.

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PS 290 Political Science Laboratory (2 or 4 credits)

From time to time, collateral, independent work of various kinds will be offered to students in conjunction with regular departmental courses. These opportunities may be limited to students enrolled in particular courses and may be restricted to political science majors. Such work may be taken more than once. Not offered on any set schedule.

Prerequisite: Permission of the instructor.

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: UC 052.

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: UC 052.

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: UC 052 and 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.

Prerequisites: PS 131 and PS 221 or PS 222.

PS 331 The British Political System (4 credits)

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

Prerequisite: PS 131.

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: PS 131 or UC 064.

PS 334 Political Systems of Southern Asia (4 credits)

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

Prerequisite: UC 066.

PS 335 Politics of Latin America (4 credits)

Analysis of the political systems of Latin America and the historical, social, and economic factors underlying them. The major countries are studied intensively, and a comparative approach is used to examine the variations from democracy to dictatorship.

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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.

Prerequisite: PS 131 or UC 068.

PS 337 The Soviet Political System (4 credits)

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

Prerequisite: PS 277.

PS 338 Modern Chinese Politics (4 credits)

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

Prerequisite: UC 062.

PS 339 Sino-Soviet Relations (4 credits)

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

Prerequisite: PS 337 or PS 338.

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: UC 052.

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.

Prerequisite: UC 052.

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: UC 052 and PS 221 or PS 222.

PS 365 Public Opinion (4 credits)

A study of the formation, communication, and change of the politically relevant opinions of individuals and groups in modern societies and of the ways in which these opinions lead to political actions. Offered in the Fall Semester.

Prerequisites: UC 052 and PS 221 or PS 222.

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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.

Prerequisite: 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.

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 Session.

Prerequisites: All 400-level courses require consent of the Department.

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DEPARTMENT OF PSYCHOLOGY

Professors:	Donald C. Hildum, Acting Chairman Edward A. Bantel David C. Beardslee Harvey Burdick Donald D. O'Dowd
Associate Professors:	Jean S. Braun Kenneth H. Coffman David G. Lowy Irving Torgoff
Assistant Professors:	Robert N. Blockovich Max Brill Joseph S. Dumas Algea O. Harrison Gary A. Klein Lorna A. Middendorf Virginia E. O'Leary F. Edward Rice Ralph J. Schillace David W. Shantz
Instructors:	Charles C. Hollen Raquel Lucía Pérez

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 and liberal arts major in psychology with concentration in linguistics. For the concentration in linguistics, see p. 122.

For programs leading to the degree of Master of Arts in psychology, see the *Graduate Bulletin*.

Majors in the Department of Psychology may take their general education requirement in the University Course Program or in the program of any one of the inner colleges.

All students in psychology courses should be aware that, in order to carry on the work of the Department, they may be asked to volunteer for psychological experiments.

Requirements for the Liberal Arts Major in Psychology

This major requires nine courses (36 credits) in psychology, which

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must include PSY 146, 231, 320, 351 or 352, and at least one course at or above the 400 level. These requirements are intended to insure an adequate general introduction to the field, an understanding of and ability to design and interpret psychological research, an acquaintance with theories about the dynamics of human action, and some advanced study in a small class.

The Department accepts all options open to students for fulfillment of the University symbolic systems requirement.

Admission to major standing requires successful completion of three courses in psychology, including PSY 146 and 231.

A student majoring in psychology who wishes to earn departmental honors must submit, six weeks before the end of his or her last semester, an application for honors which includes a list of psychology courses taken, together with an indication of instructors and grades, plus a selection of written materials submitted earlier in courses or produced especially for this application. The 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.

Liberal Arts Major in Psychology

(A Typical Program)

Semester 1

Freshman Exploratory
Distribution Requirement
Symbolic Systems
Elective

Semester 3

PSY 146
Distribution Requirement
Distribution Requirement
Elective

Semester 5

PSY 351 or 352
Psychology
Distribution Requirement
Elective

Semester 7

Psychology

Semester 2

Freshman Exploratory
Distribution Requirement
Symbolic Systems
Elective

Semester 4

PSY 231
Psychology
Distribution Requirement
Elective

Semester 6

PSY 320
Psychology
Distribution Requirement
Elective

Semester 8

Senior Colloquium

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Distribution Requirement
Elective
Elective

Psychology
Elective
Elective

UC 054 (Introduction to Social Psychology), which is described in the University Course section of the catalog, is regarded as a psychology course for fulfillment of departmental credit requirements.

PSY 146 Foundations of Contemporary Psychology (4 credits)

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

PSY 171 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. (Normally offered in the Fall and Winter Semesters.)

PSY 231 Statistics and Research Design (4 credits)

A survey of the principal statistical procedures commonly employed in research in the social sciences. Emphasis is given to the design of experimental studies, problems of sampling and control of variables, and psychological measurement. Two years of high school mathematics are recommended. (Normally offered in the Fall and Winter Semesters.)

PSY 241 Individual Differences (4 credits)

A study of intellectual, motivational, and personality differences associated with age, social roles, sex, ethnic and racial groups, and social class. (Normally offered in the Winter Semester.)

Prerequisite: UC 054 or PSY 146.

PSY 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 ED 245. (Normally offered in the Fall and Winter Semesters.)

Prerequisites: Two Freshman Exploratories and one course in psychology.

PSY 251 Abnormal Psychology (4 credits)

The psychodynamics of abnormal behavior, clinical types, methods of investigation, and principles of psychotherapy. (Normally offered in the Fall and Winter Semesters.)

Prerequisite: UC 054 or PSY 146.

PSY 261 Foundations of Organizational Behavior (4 credits)

Empirical and theoretical approaches to understanding human behavior in complex organizations. (Normally offered in the Fall and Winter Semesters.)

Prerequisite: UC 054 or PSY 146.

PSY 320 Theories of Personality (4 credits)

Review of major theories of personality, problems of theory building in this area, and

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pertinent research. (Normally offered in the Fall and Winter Semesters.)

Prerequisites: Three courses in psychology.

PSY 330 Research Methods in Social Psychology (4 credits)

Theory and techniques of survey research, field experiments, and laboratory experiments will be covered. Each student will conduct a small research project under close supervision. (Normally offered in the Winter Semester.)

Prerequisite: PSY 231.

PSY 350 Motivation (4 credits)

An examination of the nature of motivation and emotion, including both classical and contemporary theories. (Normally offered in the Fall Semester.)

Prerequisite: PSY 146.

PSY 351 Experimental Psychology: Learning, Memory, and Thinking (4 credits)

Theories on and research methods for such topics as conditioning, habit formation, perceptual-motor skills, verbal learning, and problem-solving. Weekly laboratory. (Normally offered in the Fall and Winter Semesters.)

Prerequisites: PSY 146 and 231.

PSY 352 Experimental Psychology: Sensation and Perception (4 credits)

Theories on and research methods for basic sensory systems. Topics include modern psychophysics, color vision, and spatial organization. Weekly laboratory. (Normally offered in the Fall Semester.)

Prerequisites: PSY 146 and 231.

PSY 363 Research Projects (4 credits)

A course providing opportunity for individual projects of research in the fields of perception, learning, motivation, personality, or social psychology. (Normally offered in the Fall and Winter Semesters.)

Prerequisites: Four courses in psychology, including PSY 146, 231, and permission of the Department.

PSY 371 Comparative Psychology (4 credits)

A phylogenetic approach to the analysis of animal behavior. Emphasis will be placed on the historical, philosophical, and methodological foundations of the comparative approach to the study of behavior. A simple experiment will be performed. (Normally offered in the Winter Semester in alternate years.)

Prerequisite: PSY 146.

PSY 421 Advanced Experimental Psychology (4 credits)

Empirical and theoretical investigation of issues in learning, perception, thinking, physiological psychology, and animal behavior, with research projects. (Normally offered in the Winter Semester in alternate years.)

Prerequisites: PSY 146, 231, 351, and 352.

PSY 423 Advanced Social Psychology (4 credits)

Problems of human social behavior are approached through study of the research literature and by carrying out further research. (Normally offered in the Winter Semester.)

Prerequisites: Four courses in psychology, including PSY 231.

PSY 427 Human Personality (4 credits)

The development and functioning of the adult person, with emphasis on experimental

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and clinical approaches to understanding. (Normally offered in the Winter Semester.)
Prerequisites: Four courses in psychology, including PSY 231 and 353.

PSY 431 Historical and Contemporary Issues (4 credits)

Major theoretical issues in psychology, approached both historically and philosophically. (Normally offered in the Fall Semester.)

Prerequisites: Three courses in psychology, including PSY 146.

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.)

Prerequisites: Four courses in psychology, including PSY 146 and 231.

PSY 497 Apprentice College Teaching (2 or 4 credits)

Supervised participation in the teaching of an undergraduate course in psychology, together with discussion of teaching objectives and methods. Open to psychology majors who have obtained the consent of a faculty member in this Department. Does not satisfy major requirements in psychology.

The following courses are available for graduate students and qualified upperclassmen.

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. (Normally offered in the Winter Semester.)

Prerequisite: Permission of the instructor or acceptance into the Master of Arts in Teaching program.

PSY 515 Theories of Development (4 credits)

A review and critical analysis of 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. (Normally offered in the Fall Semester.)

Prerequisites: Five courses in psychology, including PSY 171, and permission of the instructor or acceptance into the graduate program.

PSY 520 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. (Normally offered in the Fall Semester.)

Prerequisite: Permission of the instructor or acceptance into the Master of Arts in Teaching program.

PSY 525 Psychopathology of Childhood (4 credits)

A survey of the psychopathology of children and adolescents, emphasizing dynamic and cognitive-perceptual-motor variables. (Normally offered in the Fall Semester.)

Prerequisite: PSY 510 or 520, or acceptance into the Master of Arts in Teaching program in special education, or undergraduate major in psychology, or permission of the instructor.

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PSY 530 Advanced Abnormal (4 credits)

Review of the major neurotic, psychotic, psychosomatic, and organic syndromes. Current issues and research in psychopathology. (Normally offered in the Fall Semester.)

Prerequisites: Five courses in psychology, including PSY 251 and permission of the instructor or acceptance into the graduate program.

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. (Normally offered in the Winter Semester.)

Prerequisites: Five courses in psychology, including PSY 231, 351, and 353 or acceptance into the graduate program.

PSY 561 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. (Normally offered in the Fall Semester.)

Prerequisite: An undergraduate course in statistics.

PSY 570 Social and Personality Development (4 credits)

A review and critical examination of 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. (Normally offered in the Fall Semester.)

Prerequisites: Five courses in psychology, including PSY 171, and permission of the instructor, or acceptance into the graduate program.

PSY 571 Perceptual and Cognitive Development (4 credits)

A review and critical examination of 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. (Normally offered in the Winter Semester.)

Prerequisites: Five courses in psychology, including PSY 171, and permission of the instructor, or acceptance into the graduate program.

PSY 572 Psychology of Adolescence and Aging (4 credits)

An examination of significant structural, functional, and behavioral changes during adolescence and old age. This material will be integrated with field experiences in relevant settings. (Normally offered in the Winter Semester.)

Prerequisites: Five courses in psychology, including PSY 171, and permission of the instructor, or admission into the graduate program.

PSY 595 Special Topics (4 credits)

Exploration of current findings and theory in an area of special interest. (Normally offered in the Winter Semester.)

Prerequisites: Four courses in psychology and permission of the instructor.

The following courses are available only for graduate students.

PSY 610 Pro-Seminar (4 credits)

PSY 611 Research Methods and Project (4 credits)

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PSY	620	Individual Testing	(4 credits)
PSY	621	Projective Tests	(4 credits)
PSY	630	Clinical Psychology	(4 credits)
PSY	670	Applied Developmental Psychology	(4 credits)
PSY	682	Practicum	(8 credits)
PSY	690	Research Project	(4 credits)

DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY

Professors:	Nahum Z. Medalia, Chairman Jesse R. Pitts Philip Singer
Associate Professors:	Harry Gold Audrey Smedley George K. Zollschan (Visiting 1971-72)
Assistant Professors:	Carol R. Andreas Peter J. Bertocci William E. Bezdek Judith K. Brown
Instructors:	James W. Dow John B. Huner Harold A. Olofson Karen Sacks

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 students' interests while, at the same time, providing the substantive background required to prepare students for careers in their chosen fields. 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 in the University Course Program or in the programs of Allport College, Charter College, or New College (with the proviso that majors in sociology must take UC 058). The Department accepts all options open to students for satisfying the University requirement in symbolic systems.

Requirements for Majors in Sociology and Anthropology Programs

1. **Major in Sociology.** UC 058 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.)

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3. **Major in Sociology and Anthropology.** UC 058, 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.** UC 058, 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. 195-98 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. 121 of this catalog.

Liberal Arts Major in Sociology

(A Typical Program)

Semester 1

Freshman Exploratory
UC 058
Distribution Requirement
Symbolic Systems

Semester 3

SOC Elective
Distribution Requirement
Distribution Requirement
Elective

Semester 5

SOC Elective
Distribution Requirement
Distribution Requirement
Elective

Semester 7

SOC Elective
SOC Elective
Elective
Elective

Semester 2

Freshman Exploratory
SOC Elective
Distribution Requirement
Symbolic Systems

Semester 4

SOC Elective
Distribution Requirement
Elective
Elective

Semester 6

SOC Elective
Distribution Requirement
Elective
Elective

Semester 8

SOC Elective
SOC Elective
Senior Colloquium
Elective

Liberal Arts Major in Anthropology

(A Typical Program)

Semester 1

Freshman Exploratory
AN 101
Distribution Requirement
Symbolic Systems

Semester 3

AN Elective
Distribution Requirement
Distribution Requirement
Elective

Semester 5

AN Elective
Distribution Requirement
Distribution Requirement
Elective

Semester 7

AN Elective
AN Elective
Elective
Elective

Semester 2

Freshman Exploratory
AN 102
Distribution Requirement
Symbolic Systems

Semester 4

AN Elective
Distribution Requirement
Elective
Elective

Semester 6

AN Elective
Distribution Requirement
Elective
Elective

Semester 8

AN Elective
AN Elective
Senior Colloquium
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. Offered in the Fall and Winter Semesters.

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. Offered in the Fall and Winter Semesters.

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. Offered in the Fall and Winter Semesters.

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. Irregularly scheduled.

Prerequisite: AN 102 or permission of the instructor.

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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. Offered in the Fall Semester.

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. Offered in the Fall Semester.

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. Offered in the Fall Semester.

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. Irregularly scheduled.

Prerequisite: AN 102 or permission of the instructor.

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 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. Irregularly scheduled.

Prerequisite: AN 102 or permission of the 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. Offered in the Winter Semester.

Prerequisite: AN 241, or AC 101 (Introduction to Behavioral Sciences), or permission of the 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. Offered in the Fall Semester.

Prerequisite: AN 200 or permission of the instructor.

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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. Offered in the Winter Semester.

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

AN 371 Cultures of Mesoamerica (4 credits)

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

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. Offered in the Winter Semester.

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. Offered in the Winter Semester.

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. Offered in the Winter Semester.

Prerequisite: AN 200 or permission of the instructor.

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. Offered in the Fall and Winter Semesters.

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

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

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

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

Sociology

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. Irregularly scheduled.

Prerequisites: UC 058 and ED 224 or permission of the instructor.

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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. Irregularly scheduled.

Prerequisite: UC 058 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. Offered in the Winter Semester.

Prerequisite: UC 058 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. Offered in the Fall Semester.

Prerequisite: UC 058 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. Offered in the Winter Semester.

Prerequisite: UC 058 or permission of the instructor.

SOC 221 Sociology of Crime and Punishment (4 credits)

A study of the various forms of deviance, from illness and juvenile delinquency to habitual crime; and an analysis of sociological theories developed to explain the phenomenon of crime. A study of modes of control from hospitals to penitentiaries. Offered in the Winter Semester.

Prerequisite: UC 058 or permission of the instructor.

SOC 231 Racial and Cultural Relations (4 credits)

A study of racial, national, and religious groups in cross-cultural perspective. Emphasis will be placed on their historical development, on special problems of adjustment and assimilation, and on specific present-day problems and trends. Offered in the Winter Semester.

Prerequisite: UC 058 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. Irregularly scheduled.

Prerequisite: UC 058 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. Offered in the Fall Semester.

Prerequisite: UC 058 or 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

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perspective placing emphasis upon comparative materials. Offered in the Fall Semester.

Prerequisite: UC 058 or 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. Irregularly scheduled.

Prerequisite: UC 058 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. Irregularly scheduled.

Prerequisite: UC 058 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. Offered in the Winter Semester.

Prerequisite: UC 058 or permission of the instructor.

SOC 310 Contemporary Sociological Theory (4 credits)

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

Prerequisite: UC 058 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. Offered in the Fall Semester.

Prerequisite: UC 058 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. Offered in the Fall Semester.

Prerequisite: UC 058 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. Offered in the Winter Semester.

Prerequisite: UC 058 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. Offered in the Fall Semester.

Prerequisite: UC 058 or permission of the instructor.

SOC 341 Social Change (4 credits)

The prediction and explanation of social changes in society. Special attention may be

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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. Offered in the Fall Semester.

Prerequisite: UC 058 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. Irregularly scheduled.

Prerequisite: UC 058 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. Offered in the Winter Semester.

Prerequisite: UC 058 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. Offered in the Winter Semester.

Prerequisite: UC 058 or permission of the instructor.

SOC 380 Sociology of Bureaucracy (4 credits)

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

Prerequisite: UC 058 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. Irregularly scheduled.

Prerequisite: UC 058 or permission of the instructor.

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. May be repeated only once for credit. Offered in the Fall and Winter Semesters.

Prerequisites: Major standing in sociology or related majors 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. Offered in the Fall and Winter Semesters.

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

INTERDEPARTMENTAL PROGRAMS AND COURSES

THE AREA STUDIES PROGRAM

COMMITTEE ON AREA STUDIES

S. Bernard Thomas (East Asia), Chairman
Richard W. Brooks (Philosophy — India)
Edward J. Heubel (Political Science — Latin America)
Robert C. Howes (History — Russia)
Harold G. Lawrence (History — Africa)
Amitendranath Tagore (Modern Languages)

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 parallel program in African studies is now also rapidly developing.

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.)

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FACULTY OF THE CENTER

S. Bernard Thomas, Director
Sheldon L. Appleton (Political Science)
Ralph F. Glenn (Art)
Robert C. Howes (History)
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)

COURSE OFFERINGS

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

Chinese Language and Literature courses

(See Modern Languages and Literatures.)

ART	435	Chinese Art
HST	370	China: Beginnings to Mid-T'ang, ca. 750
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
HST	377	Japan to 1800
HST	378	Japan since 1800
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

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AS 490 Directed Research in Area Studies

(See pp. 201-2 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, 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

Richard W. Brooks (Philosophy), Coordinator
Peter J. Bertocci (Sociology and Anthropology)
Carlo Coppola (Linguistics and Modern Languages)
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.)

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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.)

AN	361	Contemporary South Asian Society
ART	400	Oriental Art
ECN	223	The Indian Economy
HST	380	History of Southeast Asia
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
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. 201-2 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

Robert C. Howes (History), Coordinator
Lee M. Corrigan (Russian Language and Literature)
Jerry M. Freeman (Russian Language and Literature)
Dmytro Ijewliw (Russian Language and Literature)
Helen Kovach (Russian Language and Literature)
Lawrence D. Orton (History)
James R. Ozinga (Political Science)

COURSE OFFERINGS

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

Russian Language and Literature courses

(See Modern Languages and Literatures.)

ART	465	Byzantine Art
HST	251, 252	Introduction to Russian 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. 201-2 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

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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.

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)
Colin A. Palmer (History)
Jordan B. Phillips (Spanish, Portuguese)

COURSE OFFERINGS

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

Spanish and Portuguese Language and Literature courses

(See Modern Languages and Literatures.)

AN 371 Cultures of Mesoamerica

ART 457 Pre-Columbian and Tribal Art of the Americas

ECN 326 Economic Development

HST 261, 262 Introduction to Latin American History

HST 366 Slavery and Race Relations in the New World

PS 335 Politics of Latin America

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- 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. 201-2 for descriptions of AS 385, 390, and 490.)

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) 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.

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: UC 062.

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: UC 066.

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: HST 251 or 252.

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: UC 064.

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: UC 068.

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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: UC 062, UC 064, UC 066, UC 068, or HST 251 or 252, as appropriate, and permission of 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 and admission to an area concentration.

THE 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.

SOCIAL STUDIES PROGRAM*

Requirements for the Secondary Teaching Major in Social Studies

This major has been devised for students who plan to teach social studies in junior or senior high school. The program provides a broad background in the social sciences and related fields. Admission to major standing requires successful completion of ED 244 and two courses in the social sciences and the concurrent ap-

*The social studies program is under study and is subject to revision. For information consult the Department of Political Science or the Admissions Office.

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proval of the major adviser and the School of Education. The program requires:

- (a) Either UC 054 or PSY 146.
- (b) ED 244, 245, ED 428, and ED 455.
- (c) Area Studies: 8 credits.
- (d) Social Sciences: 20 credits. For purposes of this program, the Departments of Economics, Political Science, Psychology, and Sociology and Anthropology are defined as the departments of the social sciences. The 20 credits may be distributed among these departments, with a concentration of 12 credits in one department.
- (e) History: 8 credits.
- (f) If a student pursues this major and offers a minor in history, the requirement of 8 credits in history in the major does not apply. Instead, an additional 8 credits in the social science chosen for the concentration are required.

In this program, University Courses, Freshman Exploratories, and the Senior Colloquium may, when appropriate, be counted in meeting the required totals. Courses in geography may also be counted in the major.

In consultation with the adviser, a number of minors may be selected to accompany the social studies major. Recommended minors include history and English.

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 Western history and philosophy. Included in this total are such Freshman Exploratories and Senior Colloquia as fall within the minor.

Students majoring in history who wish to elect a social studies minor must confer with the Placement Office and/or the Office of the School of Education before electing this program.

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.

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

OFF-CAMPUS STUDY PROGRAMS

Oakland University offers a variety of opportunities for off-

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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 programs in Mexico, Hong Kong, and various areas of western Europe. No department or curriculum at Oakland requires students to study abroad at any time, nor does any department sponsor a regular agenda of overseas study programs. 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.

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- (5) It is expected that part of the preparatory work will include the designation of course equivalents totaling at least eight credits for the independent study to be accomplished. This is to be effected by negotiation with the supporting faculty members.
- (6) Whenever credit is sought toward the completion of a major, the department, through its chairman, must agree to the value of the independent work.
- (7) The Dean of Students' Office will require a release from parents absolving the University of responsibility for the well-being of students under twenty-one years of age while they are participating in off-campus independent study.
- (8) The initial approval of a program for a student will be for one semester with the provision that the student may request an extension of the program for additional semesters.
- (9) The student must be registered at Oakland University and pay the required fees during the period of independent study.

A course sequence entitled CS 201-202 (Community Service) (8 credits each) represents a fourth alternative for off-campus learning. See p. 206 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

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personal rather than disciplinary motivation to make a contribution to responding to community need. Students will work under the direction of a particular professor only insofar as the training and skills of a given professor are most likely to complement and thus aid the community service interests of the student.

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.

ENVIRONMENTAL STUDIES

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 science and mathematics.)

ENV 305 Selected Topics (2 or 4 credits)

Studies in special areas, often individually arranged. Approval of the instructor listed prior to registration is required.

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.

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 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

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community. A resident course for one week, Sunday p.m. through Friday. Available for any one of five weeks during the summer. Details available.

SPEECH

SPH 201 Effective Communication (4 credits)

Theory and practice in communication with emphasis on the adaptations required by particular goals, audiences, and occasions. Through the researching, organizing, writing, and delivery of classroom communications (interview, informative, persuasive, manuscript, impromptu, oral interpretation, group discussion, etc.) students are prepared for a variety of communicative situations and needs. Videotaped student speeches and classroom interaction aid in identifying, and thereby correcting or enhancing, individual personality and delivery characteristics. This course is especially relevant to students who are or would like to be involved in campus or community activities where speech skills are essential.

SPH 301 Advanced Communication (4 credits)

Here the emphasis is on persuasion: analysis of persuasion in current society, including confrontation, activism, extremism, etc.; psychological bases of persuasion, including audience psychology; ethical considerations; and distinctions between debate and methods of persuasive argument. Classroom activities include speeches, self-evaluation through videotaping, and decision-making group discussions.

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:

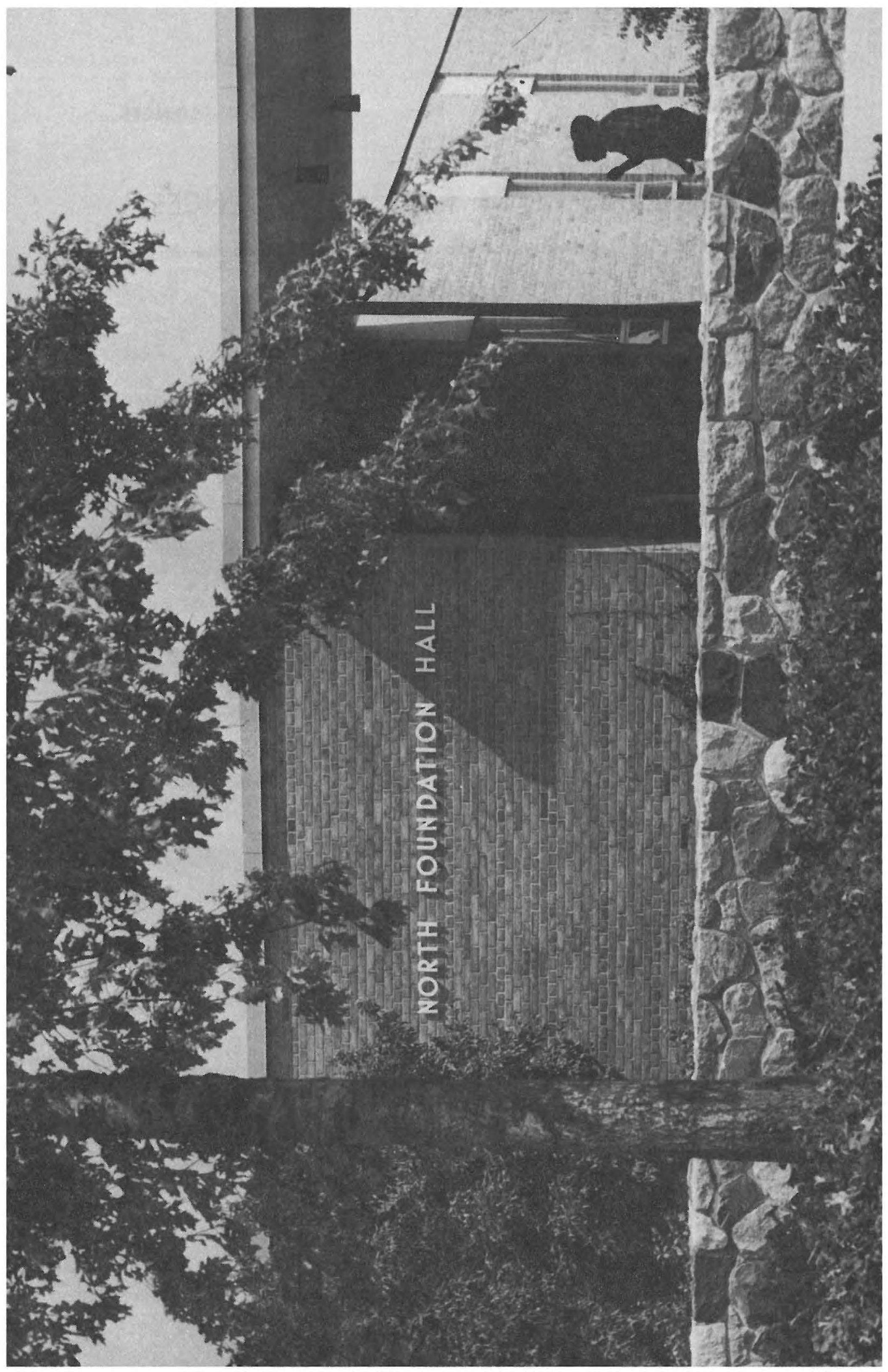
Chemistry
Physics

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*.

NORTH FOUNDATION HALL



SCHOOL OF ECONOMICS AND MANAGEMENT

OFFICERS OF ADMINISTRATION

NORTON C. SEEGER

Dean

OFFICERS OF INSTRUCTION

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Ph.D., Harvard University

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ELEUTHERIOS N. BOTSAS

Associate Professor

B.S., University of Detroit;

of Economics and Management

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

ANTHONY P. CEPHALAS

Assistant Professor of Economics

B.Sc., London School of Economics; Ph.D., Wayne State University

DAVID P. DOANE

Assistant Professor of Economics

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

Ph.D., Purdue University

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Associate Professor

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ECONOMICS AND MANAGEMENT

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The School of Economics and Management offers a program in management leading to the degree of Bachelor of Science. For students with special interests, the School also offers an independent concentration leading to the degree of Bachelor of Science. (See pp. 218-19.) 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

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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 1971-1972 and after. Students enrolled prior to 1971 may, at their option, satisfy either the present or the older requirements for graduation (but they need not satisfy both sets of requirements). Further amplification of this rule and any other curriculum changes may be obtained from departmental advisers.

PROGRAM IN MANAGEMENT

The program in management consists of five parts:

	Courses	Credits	Percentage of Total Credits
1. General Education	8	32	26%
2. Management Major Requirements:			
a. Basic Economics and Mathematics	5	20	16%
b. Management Core Program	9	30	24%
c. Management/Economics and Social Science Electives	6	24	20%
3. Electives	5	18	14%
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TOTAL FOR DEGREE	33	124	100%

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

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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 participating in the University Course Program. (See pp. 38-47 of this catalog. Certain of the University Course requirements are satisfied in the prescribed management program, and students need not duplicate those courses.) The general education requirement may also be met by participating in the program of Allport College, Charter College, or New College.*

The School of Economics and Management requires that each student take eight courses (32 credits) in general education, distributed as follows:

(1) **Freshman Exploratories.** The student is required to complete two Freshman Exploratories within his or her first three semesters. The specific Freshman Exploratory requirements are described on pp. 38-39 of this catalog.

(2) **Distribution Requirements.** Each student is required to pursue study in the fields of literature, Western history and philosophy, fine arts, social sciences, area studies, and science and mathematics. These Distribution Requirements are normally met by courses elected by the student throughout his or her semesters of study.

(a) Literature (4 credits)
Any one of the following courses: UC 018, ENG 105, ENG 111, any course in foreign languages numbered 271 or higher, a Freshman Exploratory or a Senior Colloquium in literature.

(b) Western History and Philosophy (4 credits)
Any one of the following courses: UC 036, UC 037, ED 244, HST 141 or 142, PS 272, a Freshman Exploratory or a Senior Colloquium in Western history and philosophy.

(c) Fine Arts (4 credits)
Any one of the following courses: UC 045 (Theatre), UC 047 (Art), UC 049 (Music), a Freshman Exploratory or a Senior Colloquium in one of the fine arts.

(d) Social Sciences
Satisfied by the management major requirements.

*See this catalog pp. 47-54. Management students electing one of the other options should plan their programs carefully, and they may find their freedom to choose electives limited.

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(e) Area Studies (4 credits)

Students must complete 4 credits in the study of a civilization other than that of Europe and North America in one of the following area studies courses: UC 062 (China), UC 064 (Africa), UC 066 (India), or UC 068 (Latin America). Completion of one Freshman Exploratory is a prerequisite for admission to these courses.

(f) Science and Mathematics (4 credits)

Normally, 8 credits of the University Course science and mathematics requirement are met by the prescribed management program. To complete this Distribution Requirement, the student must complete a minimum of 4 credits in science. This requirement may be fulfilled by any of the following courses: UC 086, UC 087, UC 088, UC 089 (Sciences), EGR 101, PHL 370, ENV 181, any departmental course in science, a Freshman Exploratory or a Senior Colloquium in science.

(3) **Senior Colloquium.** In the student's senior year, he or she must participate in a Senior Colloquium in a field outside the major. This course serves to focus attention upon issues of liberal intellectual concern.

(4) **Symbolic Systems Requirement.** The University symbolic systems study requirement is met by the prescribed management program.

(5) **General Education Electives.** The management student must take at least eight courses (32 credits) outside the School of Economics and Management in addition to the courses required by the management major. As indicated above, Freshman Exploratories and the Senior Colloquium may be used to fulfill the appropriate University Course Distribution Requirements. If the student elects to use Freshman Exploratories and the Senior Colloquium to meet Distribution Requirements, he or she must take additional general education courses to amass a total of eight courses (32 credits) outside the required courses for the major and outside the School of Economics and Management. Any course for which the student qualifies may be used to complete this General Education Requirement.

MANAGEMENT MAJOR REQUIREMENTS

Basic Economics and Mathematics Courses

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

ECONOMICS AND MANAGEMENT

		Credits
UC 056	Introduction to Economics	4
ECN 216	Microeconomic Analysis	4
ECN 217	Macroeconomic Analysis	4
MTH 121-122	Introductory Mathematics for the Life and Social Sciences or MTH 154-155 (Calculus)	8
TOTAL		20

Students who expect to go to graduate school should obtain as strong a foundation in economics and mathematics as possible. 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.

Management Core Program

The required management core program consists of the following courses:

		Credits
MGT 200	Management Information and Control Systems I (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 (or UC 054, Introduction to Social Psychology)	4
MGT 331	Organizational Behavior II (or PSY 261, Foundations of Organizational Behavior)	4
MGT 435	Management Strategies and Policies	4
MTH 322	Mathematical Models in the Social Sciences	4
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. The student is also required to obtain knowledge of the methods and perspective of another social science by electing two courses (8 credits) in one other social science.

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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. 218-19.)

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN MANAGEMENT

A student with a major in management must meet the following requirements in order to graduate:

1. Have completed at least 124 credits.
2. Have completed 32 credits at Oakland University. A student must normally be registered at Oakland University for at least 8 credits during the semester in which the degree is to be conferred.
3. Have a cumulative grade point average of at least 2.0 in courses taken at Oakland University.
4. Have completed at least 8 credits in electives.
5. Have completed at least 32 credits in the General Education Program, including Freshman Exploratories and a Senior Colloquium, or have completed an equivalent number of credits in Allport College, Charter College, or New College.
6. Have fulfilled the requirements for Michigan Public Law 229 by taking either the University Course in political science (UC 052) or any combination of two other courses from the University Course social science sequence (UC 054, UC 056, UC 058), or the American history sequence (HST 214, 215). Management majors ordinarily satisfy this requirement in the course of the prescribed program.
7. Have successfully completed UC 056, ECN 216, ECN 217, two courses in one of the other social sciences, MTH 121 and MTH 122, or equivalent courses.
8. Have successfully completed the Management Core Program, including MGT 200, MGT 201, MGT 210, MGT 211, MGT 300, MGT 330, MGT 331, MGT 435, MTH 322, or equivalent courses approved by the School, plus four electives (16 credits) in the School of Economics and Management.

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REQUIREMENTS FOR MAJOR STANDING

Admission to major standing requires: (a) completion of the required Freshman Exploratories, plus UC 056, MGT 200, ECN 216, ECN 217, MTH 121-122 (or equivalent), (b) 56 credits completed in total, and (c) a cumulative grade point average of 2.0 or better.

BACHELOR OF SCIENCE IN MANAGEMENT

(A Typical Program)

Semester 1

Freshman Exploratory
UC 056
MTH 121 (or MTH 154)
Distribution Requirement

Semester 3

MGT 200 and 201
ECN 216
MGT 330 (or UC 054)
Distribution Requirement

Semester 5

MGT 300
MGT/ECN Elective
Social Science Requirement
Elective

Semester 7

MGT/ECN Elective
MGT/ECN Elective
Distribution Requirement
Elective

Semester 2

Freshman Exploratory
Distribution Requirement
MTH 122 (or MTH 155)
Elective

Semester 4

MGT 210 and 211
ECN 217
MGT 331 (or PSY 261)
Distribution Requirement

Semester 6

MTH 322
MGT/ECN Elective
Social Science Requirement
Elective

Semester 8

MGT 435
Senior Colloquium
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.

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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.
4. Have completed at least 8 credits in electives.
5. Have completed at least 32 credits in the General Education Program, including Freshman Exploratories and a Senior Colloquium, or have completed an equivalent number of credits in Allport College, Charter College, or New College.
6. Have fulfilled the requirements for Michigan Public Law 229 by taking either the University Course in political science (UC 052) or any combination of two other courses from the University Course social science sequence (UC 054, UC 056, UC 058), or the American history sequence (HST 214, 215). Management majors ordinarily satisfy this requirement in the course of the prescribed program.
7. Have successfully completed a Plan of Work that was developed with a faculty adviser or advisers and that was approved by the Committee on Instruction of the School of Economics and Management.

REQUIREMENTS FOR MAJOR STANDING

Admission to major standing requires: (a) completion of the required Freshman Exploratories, (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

ECONOMICS AND MANAGEMENT

economic and social policies. By learning ways of thinking in economics, students gain insight into how to approach economic questions in various applied areas. Students are prepared for careers in industry and government or for graduate study in economics, law, management, or business administration.

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

REQUIREMENTS FOR THE LIBERAL ARTS MAJOR IN ECONOMICS

The major in economics requires a total of eight courses and one laboratory (33 credits) in economics, distributed as follows: UC 056, ECN 216, ECN 217, ECN 418 or ECN 480, ECN 210 and 211 (or MGT 210 and 211), and three other courses in the Department. In addition, all majors must complete two semesters (8 credits) of work in one other social science, and they must take MTH 121-122 (preferably during their first year). The sequence MTH 154-155 (Calculus) may be substituted for the MTH 121-122 sequence, and students who plan to take graduate work in economics are urged to take the MTH 154-155 option. MTH 154 may be substituted for MTH 122.

The two mathematics courses required in the economics program fulfill the University symbolic systems requirement.

REQUIREMENTS FOR MAJOR STANDING

Admission to major standing in economics requires that the student (a) have completed Freshman Exploratories, UC 056, ECN 216, ECN 217, MTH 121-122 or equivalent; (b) have completed 56 credits or more; and (c) have a 2.0 cumulative grade point average or better.

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LIBERAL ARTS MAJOR IN ECONOMICS

(A Typical Program)

Semester 1

Freshman Exploratory
MTH 121 (or MTH 154)
UC 056
Elective

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
Distribution Requirement
Elective
Elective

Semester 2

Freshman Exploratory
MTH 122 (or MTH 155)
Distribution Requirement
Elective

Semester 4

ECN 217
Distribution Requirement
Social Science Requirement
Elective

Semester 6

Economics Elective
Distribution Requirement
Elective
Elective

Semester 8

ECN 480
Senior Colloquium
Elective

COURSE OFFERINGS IN MANAGEMENT

Under special circumstances, the prerequisites may be waived.

MGT 100 Management: What Is It? (4 credits)

An introduction to the character of management activities and the environment in which these take place; the individual and the firm viewed as utility-maximizing systems; some elementary principles relating individuals and firms to the economic system. In dealing with these issues, the course introduces the student to some pervasive and transferable generalized skills applicable to perception and solving of problems.

MGT 200 Management Information and Control Systems I (4 credits)

Introduction to management information systems as aids to decision-making. The identification, quantification, and communication of managerial information. To include: accounting and other internal management languages; budgeting; introduction to the use of computer-based information systems. Ordinarily offered in the Fall Semester.

Corequisite: MGT 201.

MGT 201 Computer Laboratory for MGT 200 (1 credit)

Introduction to computers in information processing systems; introduction to computer

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languages and flow charts. Ordinarily offered in the Fall Semester.

MGT 205 Introduction to Computer Programming (4 credits)

Introduction to the use of computers. Students learn the BASIC language in an interactive time-sharing environment and FORTRAN in the batch mode. Ordinarily offered in the Fall Semester.

Prerequisite: Knowledge of high school algebra.

MGT 210 Management Information and Control Systems II (4 credits)

Continuation of MGT 200: management controls; statistical analysis; inference and hypothesis testing; decision theory; regression and correlation; statistical controls. Ordinarily offered in the Winter Semester.

Corequisite: MGT 211.

MGT 211 Computer Laboratory for MGT 210 (1 credit)

Use of computers in problem-solving and statistics. Ordinarily offered in the Winter Semester.

MGT 300 Systems Analysis (4 credits)

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

Prerequisite: ECN 216, ECN 217, or equivalent.

MGT 303 Economic Growth, Fluctuations, and Forecasting (4 credits)

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

Prerequisite: ECN 217 or equivalent.

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.

Prerequisite: 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.

Prerequisite: ECN 216 or equivalent.

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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.

Prerequisite: ECN 216 or equivalent.

MGT 330 Organizational Behavior I (4 credits)

Study of the interrelationships between individuals and of the effective use of human resources. Includes interpersonal relationships, motivation, innovative behavior, identification and management of human resources, and influence processes. Ordinarily offered in the Fall Semester.

MGT 331 Organizational Behavior II (4 credits)

Theoretical and empirical approaches to understanding the design and behavior of complex organizations. Ordinarily offered in the Winter Semester.

Prerequisite: 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.

Prerequisite: ECN 216 or equivalent.

MGT 342 Simulation in Management (4 credits)

An introduction to the use of simulation techniques in economic analysis.

Prerequisites: Major standing and permission of the instructor.

MGT 402 Marketing and Consumer Behavior (4 credits)

Analysis of consumer behavior and its significance for market analysis. The relationship between market structure and marketing behavior.

Prerequisite: Permission of the instructor.

MGT 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 and ECN 217, or equivalent.

MGT 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. Graded on an "S" or "N" basis. Identical with ECN 460.

Prerequisite: Major standing.

MGT 490 Independent Research (4 credits)

Offered every semester.

Prerequisite: Permission of the instructor.

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COURSE OFFERINGS IN ECONOMICS

BASIC COURSES

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

ECN 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.

Prerequisite: MTH 122 or equivalent.

Corequisite: ECN 211.

ECN 211 Laboratory for ECN 210 (1 credit)

Use of computers in statistics.

ECN 216 Microeconomic Analysis (4 credits)

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

Prerequisite: UC 056 or equivalent.

Prerequisite or corequisite: 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.

Prerequisite: UC 056 or equivalent.

Prerequisite or corequisite: MTH 122 or equivalent.

ECONOMICS ELECTIVES

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

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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.
Prerequisite: UC 056 or equivalent.

ECN 300 Systems Analysis (4 credits)

Emphasizes the identification of goals and the use of resources for achieving goals through the application of analytical and quantitative tools developed in earlier courses to problems drawn from a variety of experiences, e.g., financial management, marketing, production, capital budgeting, etc. The course is designed to develop students' skills in the use of tools, to facilitate the transferability of these skills, and to enhance their ability to develop new skills as required by a given situation. Identical with MGT 300. Ordinarily offered in the Fall Semester.
Prerequisite: ECN 216, ECN 217, 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.
Prerequisite: ECN 217 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.
Prerequisite: UC 056 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.
Prerequisite: UC 056 or equivalent.

ECN 321 Monetary Theory and Policy (4 credits)

Analysis of modern monetary and banking theories. The course investigates both domestic and international monetary analysis and policies, and the relationship between monetary and fiscal policies as they affect the economy.
Prerequisite: ECN 217 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.
Prerequisite: ECN 216 or equivalent.

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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.

Prerequisite: 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.

Prerequisite: 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.

Prerequisite: 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.

Prerequisite: UC 056 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.

Prerequisite: 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.

Prerequisite: UC 056 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.

Prerequisite: ECN 216 or equivalent.

ECN 405 Econometrics (4 credits)

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

Prerequisites: ECN 210, ECN 216, ECN 217 (or equivalent courses), and permission of the instructor.

ECN 417 Advanced Economic Theory (4 credits)

This course covers selected topics in the economic theory of resource allocation, economic growth, and stability.

Prerequisites: ECN 216 and ECN 217, or equivalent.

ECN 418 Selected Topics in Economic Policy (4 credits)

Prerequisite: Major standing.

ECONOMICS AND MANAGEMENT

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 and ECN 217, 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. Graded on an "S" or "N" basis. 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 (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
Assistant Director of Student Teaching

OFFICERS OF INSTRUCTION

DONALD D. O'DOWD

President

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FREDERICK W. OBEAR

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Provost

DEPARTMENT OF TEACHER EDUCATION

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EDUCATION

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B.A., Boston University; B.J. Ed., Hebrew Teachers College;
Ed.M., Harvard Graduate School

WILLIAM C. FISH Instructor in Education
B.A., Amherst College; B.D., Yale University

SIDNEY W. GRABER Associate Professor of Education
B.A., Wayne State University; M.A., Wayne State University;
Ed.D., Wayne State University

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Dean of the School of Education
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Ed.D., Michigan State University

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M.A., University of New Mexico; Ed.D., University of New Mexico

EDUCATION

PATRICK J. JOHNSON Associate Professor of Education
Director of Student Teaching

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RODERIC E. RIGHTER Associate Professor of Education
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B.A., University of Illinois

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COLLEGE OF ARTS AND SCIENCES

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EDUCATION

GEORGE F. FEEMAN Professor of Mathematics
B.S., Muhlenberg College; M.S., Lehigh University;
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M.A., Columbia University; Ed.D., Columbia University;
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DONALD C. HILDUM Professor of Psychology and Linguistics
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B.A., Yale University; M.A.T., Yale University

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Dean of Graduate Study
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EDUCATION

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IRVING TORGOFF Associate Professor of Psychology
B.S., City College of New York; Ph.D., University of Rochester

UNIVERSITY READING CENTER

HARRY T. HAHN Director

E. HAROLD BENNETT Specialist in Reading
B.S., Appalachian State Teachers College;
M.Ed., University of Michigan

WALLACE S. MESSER Specialist in Reading
B.S., Wayne State University;
M.A., San Fernando Valley State College

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

THE UNDERGRADUATE PROGRAMS

Prospective elementary and secondary teachers may pursue a variety of programs and be sponsored for teaching certificates in

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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. 237-38 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 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. 69.)	Mathematics	(See p. 126.)
Chemistry	(See p. 79.)	Music	(See p. 156.)
English	(See p. 98.)	Physics	(See p. 168.)
French	(See p. 138.)	Russian	(See p. 138.)
German	(See p. 138.)	Spanish	(See p. 138.)
History	(See p. 108.)	Social Studies	(See p. 202.)
Latin	(See p. 88.)		

SECONDARY TEACHING MINORS

Ten teaching minors are available to the prospective secondary school teacher. They are:

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Art	(See p. 62.)	Modern Languages	(Refer to
Biology	(See p. 69.)		specific
Chemistry	(See p. 79.)		language)
English	(See p. 99.)	Physics	(See p. 168.)
History	(See p. 109.)	Science	(See p. 207.)
Mathematics	(See p. 126.)	Social Studies	(See p. 203.)

ELEMENTARY TEACHING MAJORS

Prospective elementary school teachers must take a common core program and choose one area for major concentration and another for minor concentration. Students may concentrate in two major fields (instead of one major and one minor), but they *may not select a single area for both major and minor concentrations*. The core program and the concentrations complete all University requirements for graduation except that together they do not normally yield sufficient credits for the degree of Bachelor of Arts. To reach the minimum graduation requirement of 124 credits, students, in consultation with their advisers, must complete their programs with electives.

The Core Program for Prospective Elementary Teachers

For course descriptions of Freshman Exploratories, Distribution Requirements and Senior Colloquia, see pp. 42-46.

Freshman Exploratories	8 credits
Foreign Language or LIN 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 (See Distribution Requirements p. 40)	4 credits
Social Sciences (other than psychology)	4 credits
Senior Colloquium	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 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		16 credits
Total		36 credits

This total of 36 credits can include the Freshman Exploratories and Senior Colloquium applicable to this concentration. Admission to major standing requires that the student have completed 56 credits. He or she must also be in academic good standing and have attained a combined average of 2.0 in a group of courses consisting of two Freshman Exploratories, psychology, ED 244 and ED 245, and three additional courses in the core and/or concentration. Approval for major standing must be obtained from the School of Education. Admission to major standing must be approved before the student completes more than 72 credits.

MODERN LANGUAGE

Foreign Language	From the core program	10 credits
Additional courses in same language offered in fulfillment of core requirement		26 credits
Total		36 credits

Admission to major standing requires that the student have completed 56 credits. He or she must also be in academic good standing and have attained a combined average of 2.0 in a group of courses consisting of two Freshman Exploratories, psychology, ED 244 and ED 245, and three additional courses in the core and/or concentration. Approval for major standing must be obtained from the School of Education and from the Department of Modern Languages and Literatures. Admission to major standing must be approved before the student completes more than 72 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.

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LANGUAGE ARTS

Foreign Language or LIN 176, 177	}	From the core program	8 credits
Literature			4 credits
Additional courses in English, speech, foreign language			24 credits
Total			36 credits

This total of 36 credits can include the Freshman Exploratories and Senior Colloquium applicable to this concentration. Admission to major standing requires that the student have completed 56 credits. He or she must also be in academic good standing and have attained a combined average of 2.0 in a group of courses consisting of two Freshman Exploratories, psychology, ED 244 and ED 245, and three additional courses in the core and/or concentration. Approval for major standing must be obtained from the School of Education. Admission to major standing must be approved before the student completes more than 72 credits.

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

This total of 36 credits can include the Freshman Exploratories and Senior Colloquium applicable to this concentration. Admission to major standing requires that the student have completed 56 credits. He or she must also be in academic good standing and have attained a combined average of 2.0 in a group of courses consisting of two Freshman Exploratories, psychology, ED 244 and ED 245, and three additional courses in the core and/or concentration. Approval for major standing must be obtained from the School of Education and from the Committee on Science and Mathematics. Admission to major standing must be approved before the student completes more than 72 credits.

Minor Concentrations

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

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HST 214, 215	8 credits
Additional courses in history, social science, geography, area studies	4 credits
Total	24 credits

This total of 24 credits can include the Freshman Exploratories and Senior Colloquium applicable to this concentration.

LANGUAGE ARTS

Foreign Language or LIN 176, 177	} From the core program	8 credits
Literature		4 credits
Additional courses in English, speech and foreign language		12 credits
Total		24 credits

This total of 24 credits can include the Freshman Exploratories and Senior Colloquium applicable to 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

This total of 24 credits can include the Freshman Exploratories and Senior Colloquium applicable to this concentration.

**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.

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3. Demonstrated proficiency in the use of English. The criteria of acceptability may be ascertained by consulting the School of Education Office. Students should satisfy this requirement before the senior year to allow time to remove deficiencies.

NOTE: Students who expect to teach in a state other than Michigan should ascertain what requirements beyond those of Michigan that state demands. It is the responsibility of the student to plan his or her program accordingly.

THE GRADUATE PROGRAMS

The School of Education and the College of Arts and Sciences jointly offer programs leading to the degrees of Master of Arts in Teaching in English and Master of Arts in Teaching in mathematics. In addition, the School of Education offers programs leading to the degree of Master of Arts in Teaching in the areas of elementary education and of reading and the degree of Master of Arts in Teaching in special education (for emotionally disturbed children). For details on these graduate programs consult the *Graduate Bulletin*.

CERTIFICATION PROGRAMS FOR GRADUATES

For graduates of accredited institutions who wish to be certificated as teachers, Oakland University makes available programs in all majors offered by the University. Those seeking sponsorship for certification must be admitted through the Office of Graduate Study and must then apply to the School of Education for preparation of a certification program. This program will be prepared in consultation with the departments concerned and must be approved by them as well as by the School of Education. Application for admission should be made early enough in the semester prior to the one in which the student intends to enroll so that the various departments as well as the School of Education have ample opportunity to evaluate transcripts and advise students of courses which they will be required to take. Successful completion of such a program leads to sponsorship by Oakland University for the appropriate Michigan Provisional Certificate.

COURSE OFFERINGS

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

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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: Two Freshman Exploratories.

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: Two Freshman Exploratories and one 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 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 development, listening, spelling, reading, and the application of linguistic principles to reading and writing are among the topics covered in this course.

Prerequisite: ED 245 or its equivalent.

ED 365 Introduction to Student Personnel Services (2 or 4 credits)

Includes basic principles and practices, evaluation and organization of college student personnel services for persons who are currently engaged in some phase of student personnel work or who plan to enter this work in the near future.

Prerequisite: Permission of the instructor.

ED 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 emerg-

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ing 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 the instructor.

ED 428 Teaching of the Major Field (4 credits)

Content and methodology appropriate to the student's major field. Organization of programs and courses, bibliography of the field, and techniques of instruction receive special emphasis.

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.

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 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. 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 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 the 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.

Prerequisite: Admission to a graduate program or permission of the instructor.

ED 521 Education of Exceptional Children (4 credits)

The course is devoted to the special provisions, remedial procedures, care, treatment, education, and rehabilitation of several types of exceptional children. These include emotionally disturbed, mentally retarded, gifted, blind, deaf, physically handicapped, and other health-impaired children. Site visits to clinical and hospital as well as educational settings are included.

Prerequisite: Admission to a graduate program, or one year's teaching experience, or permission of the instructor.

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 530 Advanced Topics in Literature for Children (4 credits)

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,

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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.

Prerequisite: Admission to course in a graduate program or permission of the instructor.

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.

Prerequisite: Admission to course in any graduate program or permission of the Department.

ED 532 Teaching Reading in the Primary Grades (4 credits)

This course is designed to examine principles, practices, and research related to early reading instruction. It will include an analysis of the relationship of the various language arts to reading skills and will place emphasis upon the developmental skills of pupils, starting with kindergarten.

Prerequisite: Admission to course in any graduate program or permission of the Department.

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

This course is designed to examine the principles, practices, and research related to the teaching of reading in 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.

Prerequisite: Admission to course in any graduate program or permission of the Department.

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.

Prerequisite: ED 331 or ED 531 or equivalent preparation in reading instruction.

ED 535 The Perceptually Handicapped in Reading (4 credits)

A study of theories of perception and their impact on the reading process. Identification of reading difficulties and implementation of corrective measures in the classroom will receive special emphasis.

Prerequisite: Permission of the instructor.

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 is included.

Prerequisite: ED 521 or permission of the instructor.

ED 555 Practicum for Teachers of the Urban-Rural Disadvantaged (8 credits)

This is a specialized performance-based, field-centered practicum designed to pre-

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pare teachers for urban-rural disadvantaged children, as well as to fulfill supervised internship requirements for Michigan elementary certification. The practicum intern progresses through four developmental phases, gaining higher levels of competencies in the teaching strategist function, teaching research function, behavioral management function, school-community function, and membership role function.

Prerequisite: Open to graduate students enrolled in special projects.

ED 560 Special Problems in Guidance (2, 4, 6, or 8 credits) and Personnel Work

A course dealing with specialized problems in various phases of school guidance and counseling, college student personnel work, or employment counseling. The specific topics will be based upon the clientele and staff needs. The course can be taken more than once, but for no more than a total of 8 credits. It may be elected for independent study.

Prerequisite: Permission of the instructor.

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. The course is intended to serve as an elective for students who have an education major and as a foundations course for students and teachers who wish to consider entering the field of guidance and counseling at the elementary and junior high school level.

Prerequisite: Admission to a Master of Arts in Teaching program or permission of the instructor.

ED 562 Workshop in Guidance and Personnel Services (2, 4, 6, or 8 credits)

This course provides an opportunity for teachers, counselors, administrators, and other personnel to evaluate and develop various aspects of guidance and student personnel programs. The course is offered upon request from school system or agency personnel for the purpose of providing in-service education for counselors and others from various work settings in personnel services.

Prerequisite: Permission of the instructor.

ED 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.

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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 the instructor.

ED 601 History of Education (4 credits)

A study of the cultural forces (primarily in the West) as they shaped, and were shaped by, the education of the young. Characteristic patterns of educational institutions, changing conceptions of curricula, dominant social and philosophic ideas concerning education, and significant contributions by individual educators represent some of the professional topics which are discussed in their historical settings. Prerequisite: Admission to course in any graduate program.

ED 602 Philosophy of Education (4 credits)

A study of philosophical inquiry in relation to education. Philosophic analysis of educational problems, educational conclusions by systematic philosophers, logical relationships between various philosophical and educational positions are among the topics considered.

Prerequisite: Admission to course in any graduate program.

ED 603 Comparative Education (4 credits)

An analysis of education and its relationship to social and economic change in various cultures. Lectures, readings, and discussions will deal primarily with existing educational systems originating in Western culture, such as those of Great Britain, U.S.S.R., Sierra Leone, Kenya, but the course will also include some study of selected utopian educational systems.

Prerequisite: Admission to course in any graduate program.

ED 604 Sociology of Education (4 credits)

A study of social and cultural forces and their impact on the organization and practices of schools. An investigation of social dynamics within the schools and the impact of schools on other institutions of society.

Prerequisite: Admission to course in any graduate program.

ED 611 Problems in Elementary Education (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 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

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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 the Education of the Emotionally Disturbed (6 credits)

This is a specialized laboratory experience, including educationally related work in an interdisciplinary treatment setting with emotionally disturbed children. Observation, tutoring, diagnostic and prescriptive teaching on a one-to-one basis and in group instruction are part of the course. ED 623 must be taken concurrently.

Prerequisites: Completion of all other requirements for the degree of Master of Arts in Teaching in special education, or permission of the instructor.

ED 623 Seminar in the Education of the Emotionally Disturbed (2 credits)

A study and interpretation of psychological information, development of understanding of psychiatric intervention, the use of case study, and educational relevancy of case materials in dealing with the emotionally disturbed. 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.

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 and permission of the 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.

Prerequisites: Admission to course in a Master of Arts in Teaching program and at least one previous course in reading instruction.

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: Admission to course in a Master of Arts in Teaching program and at least one previous course in reading instruction.

ED 633 Correction of Reading 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.

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Prerequisites: Admission to course in a Master of Arts in Teaching program and at least one previous course in reading instruction.

ED 662 Assessment of Children (4 credits)

A study of techniques used in the assessment of individual children, such as: standardized tests, analysis of behavior, evaluation of children's personal concepts and attitudes, and examination of health and physical development. Emphasis is placed on assisting teachers to make use of pupil assessment information in the provision of appropriate learning activities and developmental or behavior modification experiences which meet the needs of each child. The course also includes interpretation of statistics commonly used in test standardization and reported in research. A requirement of the course is to make an action research study of the effect of certain practices.

Prerequisite: Admission to a Master of Arts in Teaching program or permission of the instructor.

ED 663 Group Procedures in Guidance (4 credits)

Includes a study of group guidance procedures and materials and actual group experience in various group approaches and demonstrations of techniques appropriate for use in educational settings with children and adults, and practice in working with small groups of children or simulation of certain group situations that are common to classroom activities.

Prerequisite: Admission to a Master of Arts in Teaching program or permission of the 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.

Prerequisite: Admission to a Master of Arts in Teaching program or permission of the instructor.

ED 699 Terminal Project (4 credits)

The planning and execution of a significant research or action project in accordance with the advice of the student's guidance committee.

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 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), and SS 570 (Social Studies in the Elementary School) are three courses appropriate for many students preparing to teach. For course descriptions see p. 207 and p. 203 of this catalog.

SCHOOL OF ENGINEERING

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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:

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Dr. Paul F. Chenea

Dr. Robert R. Johnson

Mr. H. L. Misch

Dr. E. N. Petrick

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UNDERGRADUATE CURRICULUM IN ENGINEERING

The undergraduate engineering program at Oakland University is built on the broad intellectual base of the University's imaginative program in liberal arts and the sciences and is designed to provide a comprehensive academic preparation for students 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, the physical sciences, and the life 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 nine engineering courses in this core curriculum

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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. The initial course in engineering (EGR 101) introduces students to digital computer FORTRAN programming, 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 (EGR-400 series) 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 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 also useful.

Transfer Students

Courses in mathematics, English, and the physical sciences essential to the study of engineering are available in many liberal arts colleges and community junior colleges. Often these are offered as a part of a complete two-year program designed to meet the requirements for study of engineering at the professional level in other colleges and universities.

Students with any amount of college credit will be considered for transfer admission. However, since the engineering program at Oakland University is based on a strong foundation in mathematics and the physical sciences, a student planning to transfer into it should carefully consider the advantages of completing such basic pre-engineering programs before applying for transfer.

As many as possible of the following credits should be presented for transfer: analytic geometry and calculus including linear algebra and differential equations (four courses); introductory college physics covering mechanics, electricity and magnetism, wave motion and optics and using 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.

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Students planning to transfer are encouraged to accumulate equivalents of certain general education requirements of the Oakland University engineering program outlined below, but not at the expense of the mathematics and physical science requirements outlined above.

See pp. 281-84 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 124 credits.
2. Have completed 32 credits at Oakland University. At least 16 of these credits must be in engineering. A student must be registered at Oakland University for at least 8 credits during the semester in which the degree is to be conferred, except during the Spring or Summer Session when the student must be registered for at least 4 credits.
3. Have a cumulative grade point average in courses taken at Oakland University of at least 2.0.
4. Have completed at least 8 credits in electives.
5. Have completed at least 24 credits in general education by means of the University Course Program (including two Freshman Exploratories and a Senior Colloquium), or in Allport College, Charter College, or New College. (See pp. 42-54 of this catalog for course descriptions.) Details of ways in which engineering students may satisfy the general education requirements are given under general education on pp. 253-55.
6. Have fulfilled the requirements for Michigan Public Law 229, by taking either the University Course in political science (UC 052), any combination of two other courses that satisfy the University Course social science requirement, or the American history sequence (HST 214, 215).
7. Have completed the engineering core program, which consists of EGR 101, 172, 215, 225, 241, 326, 344, 345, and 361, and in addition 12 credits in 400-level courses approved by the student's adviser. The cumulative grade point average attained in the

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engineering core courses and the 400-level elective courses must be at least 2.0.

8. Have completed the science and mathematics core program consisting of PHY 151, 152, and 371; MTH 154, 155, 254, and 255; CHM 114; and BIO 108, or a substitute course in biology or chemistry approved by the student's adviser.

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 or by receiving transfer credit from another institution) or to have the course requirement formally waived either by examination or 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.) A student may demonstrate proficiency in a course in which he or she is not registered; the course requirement will be waived but no academic credit or grade will be given for the course. In exceptional cases, credit may be awarded, provided that such credit shall not exceed 20 per cent of the credits earned at Oakland University for the degree of Bachelor of Science. The number of credits so awarded will be entered in the "transfer credit" column on the student's record.

GENERAL EDUCATION

Oakland University requires all undergraduates in degree programs to share in a series of courses designed to provide a broadening intellectual experience in liberal education. Typically, engineering students meet this general education requirement by participating in the University Course Program. (See pp. 42-47 of this catalog for course descriptions.) It is also possible for engineering students to meet this requirement by enrollment in Allport College, Charter 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.

University Course Program

Students satisfying the general education requirement by means of the University Course Program should take one and only one

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Freshman Exploratory in each of the first two semesters, unless they have transferred equivalent credits from another institution. The Exploratories must be chosen from the following groups (no two may be chosen from the same group): literature, Western history and philosophy, fine arts, man and contemporary society (social sciences), and area studies. Any student who has not satisfactorily completed two Exploratories in the first three semesters may be declared ineligible to continue as an enrolled student by action of the Committee on Academic Standing. These Freshman Exploratories are taught in seminar-sized classes and are intended to develop the student's ability to think, to discuss, and to write intelligently and critically. Successful completion of two Exploratories satisfies the University writing competency requirement. No student may receive credit for more than two Exploratories, including equivalent credits for courses taken at other institutions. The Freshman Exploratories, if in literature (UC 01A, UC 02A, UC 03A), Western history and philosophy (UC 01B, UC 02B, UC 03B), fine arts (UC 01C, UC 02C, UC 03C), man and contemporary society (social sciences, UC 01D, UC 02D, UC 03D), or area studies (UC 01E, UC 02E, UC 03E) satisfy equivalent Distribution Requirements in these fields for the student in engineering.

The Senior Colloquium is taught in a seminar setting and serves to focus attention upon issues of liberal intellectual concern. It must be taken in one of the last two semesters in residence. Students in engineering may use the Senior Colloquium to satisfy the equivalent Distribution Requirement. In planning their programs engineering students should note that the Senior Colloquia in literature (UC 09A), Western history and philosophy (UC 09B), and man and contemporary society (social sciences, UC 09D) are offered each semester, whereas those in fine arts (UC 09C) and area studies (UC 09E) are only offered from time to time.

The 24 credits (including the 8 credits in Freshman Exploratories and the 4 credits in the Senior Colloquium) must be distributed as follows:

- A. Literature: 4 credits.
(UC 018, ENG 105, ENG 111, or any course in modern foreign languages numbered 271 or higher and especially those numbered 285.)
- B. Western History and Philosophy: 4 credits.
(UC 036, UC 037, ED 244, HST 141, HST 142, or PS 272.)
- C. Fine Arts: 4 credits.
(UC 045, UC 047, or UC 049.)

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D. Social Sciences: 8 credits.

(UC 052, UC 054, UC 056, UC 058, AN 102, PS 131, PSY 146.)

E. Area Studies: 4 credits.

(UC 062, UC 064, UC 066, or UC 068. Enrollment in these courses is limited to those who have completed at least one Freshman Exploratory.)

For information on the University's diversified programs for off-campus study, see pp. 203-6.

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.

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 com-

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puter 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 Digital Computer Methods in Engineering (EGR 480), the compiler structures option of Special Topics (EGR 405), Hybrid Computation and Simulation (EGR 481), and Switching Theory (EGR 485).

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), and 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) and Fluid Transport (EGR 449), as well as courses in materials, systems, or energy conversion, depending upon his or her particular interests.

Materials Engineering

To the materials courses in the core program and the required course in Modern Physics (PHY 371), students in materials engineering should consider adding courses in chemistry beyond CHM 114. 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 Special Topics (EGR 405).

Coherent Optics

As preparation for a career in coherent optics the student should elect Signal and System Analysis (EGR 425), Electric and Magnetic Fields (EGR 445), and Coherent Optics (EGR 450).

Energetics

The student preparing for a career involving such applications as plasma engineering, magnetohydrodynamics, ion propulsion, and fuel cells should add to the core program Electric and Magnetic Fields (EGR 445) and Direct Energy Conversion (EGR 454).

Environmental Engineering

Specialization in environmental engineering may be achieved through environmental science electives, 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. Oakland University is unusual in including a course in biology in its regular requirements for engineering

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students. To pursue the bio-engineering option students should take Physiology (BIO 221) and Elementary Biophysics and Cellular Biochemistry (BIO 225, 226) as further preparation. Advanced work may be taken through Special Topics (EGR 405) and through 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 programs 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. 16. Requirements for the premedical concentration as they pertain to engineering students are given in the following paragraphs.

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. 202.

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

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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.

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 in their program or to fill out a Plan of Study have encountered difficulties in completing the degree requirements on schedule.

BACHELOR OF SCIENCE MAJOR IN ENGINEERING

(A Typical Program)

Semester 1

Freshman Exploratory
EGR 101
MTH 154
CHM 114

Semester 3

EGR 215
MTH 254
PHY 152
Distribution Requirement

Semester 5

EGR 326
EGR 345

Semester 2

Freshman Exploratory
EGR 172
MTH 155
PHY 151

Semester 4

EGR 225
EGR 241
MTH 255
Distribution Requirement

Semester 6

EGR 344
EGR 361

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PHY 371
Elective
Semester 7
EGR (400 level)
EGR (400 level)
Distribution Requirement
Elective

BIO 108
Elective
Semester 8
Senior Colloquium
EGR (400 level)
Elective
Elective

UNDERGRADUATE COURSE OFFERINGS
REGULATIONS GOVERNING COURSES

1. A course sequence joined by a hyphen (e.g., MTH 154-155) must be taken in the order indicated. The first course in such a sequence is regarded as a prerequisite to that following. A department or school has, however, the right to waive these and any other prerequisite course requirements.
2. Course numbers separated by commas (e.g., HST 214, 215) indicate related courses, which may be taken in any order. Departmental or program requirements may govern the order in certain cases, however.
3. University Courses and courses numbered 100 to 299 are introductory or intermediate undergraduate courses. Courses numbered 300 to 499 are advanced courses primarily for undergraduates. Courses numbered 500 and above are primarily for graduate students.
4. The Registrar reserves the right to cancel any course in which there is insufficient registration.

EGR 101 Introduction to Engineering Design (Core) (4 credits)
The digital computer and 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 Drafting (2 credits)
Introduction to the use of drafting instruments and drafting procedures. Offered in the Fall and Winter Semesters.
Prerequisite: Consent of the instructor.

EGR 111 Shop Practice (2 credits)
Introduction to basic machining principles and machine shop techniques, with emphasis on practical experience. Offered in the Fall and Winter Semesters.
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.

ENGINEERING

EGR 180 Introduction to Computer Programming (2 credits)

Computer programming and problem solving; use of FORTRAN. A student who has received prior credit for EGR 101 may not receive credit for EGR 180. Offered in the Fall and Winter Semesters and in the Spring and Summer Sessions.

EGR 181 Intermediate Computer Programming (2 credits)

Advanced FORTRAN programming: subprogramming; output; data storage and manipulation; disk and tape operations; matrix manipulation; logical and complex variables and operations. Use of compilers and system monitors. Elementary numerical methods: algebraic equations; polynomial factoring; least squares curve fitting; statistical methods. Offered in the Fall and Winter Semesters.

Prerequisite: EGR 101 or EGR 180.

EGR 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. EGR 182 is offered in the Fall Semester and may be taken alone. EGR 183 which is offered in the Winter Semester has EGR 182 as a prerequisite.

EGR 205 Engineering Topics (4 credits)

Introductory and intermediate study in special areas. May be taken more than once. Offered in the Fall and Winter Semesters.

EGR 209 Engineering Project (2 or 4 credits)

Introductory work on laboratory projects; topics to be chosen by the student in consultation with an instructor. May be taken more than once. Offered in the Fall and Winter Semesters and in the Spring and Summer Sessions.

EGR 215 Statics and Dynamics (Core) (4 credits)

A vector treatment of mechanics which includes particle statics, equilibrium of rigid bodies, analysis of elements, kinematics, and kinetics of particles and rigid bodies, applications of dynamics to machine elements, analytic solutions of dynamical systems. Offered in the Fall and Winter Semesters.

Prerequisites or corequisites: MTH 154 and PHY 151.

EGR 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.

Prerequisite: CHM 114.

Prerequisite or corequisite: MTH 254.

ENGINEERING

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.

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. Various offered in the Fall and Winter Semesters. 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 |

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: (a) 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 (b) 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.

Prerequisite: EGR 344 or EGR 425.

EGR 431 Automatic Control Systems (4 credits)

Review of basic methods for determining the equations of motion of various types of linear components and systems. Transient response to deterministic inputs and the definition of Lagrangian stability. The root locus method. Open- and closed-loop frequency response. Bode and Nyquist diagrams. Compensating networks. Use of analog computers in control system design. Offered in the Winter Semester.

Prerequisites: MTH 255 and EGR 326.

EGR 432 Analysis of Nonlinear Systems (4 credits)

Analysis of first- and second-order nonlinear physical systems with many engineering applications. Piecewise-linear models for zero-memory systems. Phase-plane analysis for autonomous systems; singular points, equilibrium, limit cycles. Stability analysis via theorems of Poincaré, 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.

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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 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.

Prerequisites: EGR 172 and consent of the instructor.

EGR 480 Digital Computer Methods in Science and Engineering (4 credits)

The application of digital computer numerical methods to engineering problems. Classical methods for solving general algebraic equations, polynomial factoring, Runge-Kutta and predictor-corrector methods for solution of ordinary differential equations and matrix computer methods. Also included are various contemporary methods such as Laplace transform inversion, Latin Squares techniques, partial differential equations and the Fast Fourier Transform. Emphasis is placed on student development of general purpose subroutines for use in engineering applications. Offered in the Winter Semester.

Prerequisite: EGR 326 or consent of the instructor.

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.

Prerequisite: 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

ENGINEERING

on-line data reduction. Introduction to sequential switching decomposition for control and programming of systems. Offered in the Winter Semester.

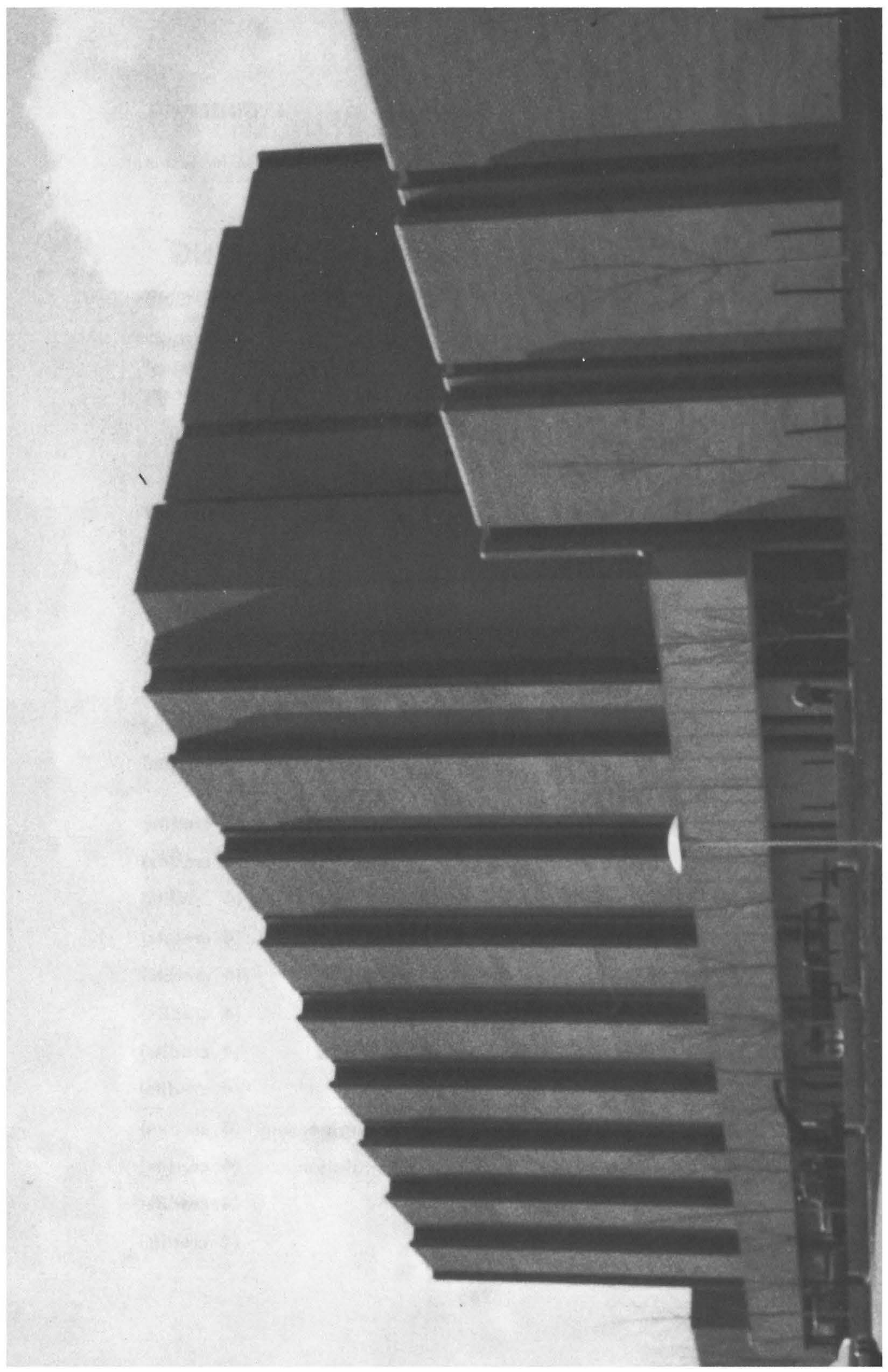
Prerequisite: EGR 326 or consent of the instructor.

GRADUATE CURRICULUM IN ENGINEERING

For detailed descriptions of graduate courses and admission requirements, see the *Graduate Bulletin*. The School Engineering presently offers instruction leading to the degree of Master of Science in engineering. 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 535	Large Scale Systems	(4 credits)
EGR 540	Electromagnetic Signals and Waves	(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 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)



SCHOOL OF PERFORMING ARTS

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Associate Dean

JERRY L. DAHLMANN

Administrative Director
Academy of Dramatic Art

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Academy of Dramatic Art

Honors Diploma and Teaching Certificate,
Academy of Music and Dramatic Art, London

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Lecturer in Technique and Acting,
Academy of Dramatic Art

Diploma, Central School of Speech and Drama, London

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Associate Professor of Performing Arts
Associate Dean, School of Performing Arts

B.M.E., University of Kansas; M.M., University of Illinois

TERENCE E. KILBURN

Lecturer in Acting,

Acting Artistic Director, Academy of Dramatic Art

Acting Artistic Director, Meadow Brook Theatre

Professional artist in residence;
actor and director in London and New York

PAUL A. D. LEE

Lecturer in Acting,
Academy of Dramatic Art

Professional artist in residence;
actor, director, dramatist

IRIS J. MacGREGOR

Lecturer in Voice,
Academy of Dramatic Art

R.B.T.C.D., Rose Bruford College, London;
A.D.B. and L.G.S.M., University of London

PERFORMING ARTS

ADA B. MATHER

Professional artist in residence;
actress, director, dramatist

Lecturer in Acting,
Academy of Dramatic Art

CHRISTOPHER A. ROSS-SMITH

B.A., Natal University, South Africa;
Diploma (Speech and Drama), Rose
Fellow, Trinity College of Music, Lon

Lecturer in Voice and Acting,
Academy of Dramatic Art

ERROL SEGAL

B.A., Brooklyn College; M.A., San Francisco State College

Lecturer in Movement,
Academy of Dramatic Art

GWENDOLYN I. SHAROFF

B.A., Baylor University; M.A., Baylor University

Lecturer in Technique and
r, Academy of Dramatic Art

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.

The School of Performing Arts is in process of reformulating its program in music. The unique concepts pioneered and developed by the summer music institutes and master classes, together with the remarkable attainments of this kind of intensive instruction, exemplify Oakland's meritorious contributions to music education. The opportunity, if not the necessity, to develop new instructional capabilities in the performing arts motivates the University in making the decision to suspend professional instruction in music during the summer session for an indeterminate period of time in order to facilitate a comprehensive study of new concepts and formats better suited to summer instruction in the arts.

The scope of the School of Performing Arts continues to broaden. The Academy's distinctive instructional capabilities have been augmented by the organization of a course (UC 045) at the University Course level expressly designed to introduce the theatre to students in the University's general education program. This course provides 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,

PERFORMING ARTS

as well as for master classes in the other performing arts. As essential elements of a comprehensive enterprise in the performing arts, television and film are cited for later inclusion. Both present and future programs of professional training will extend and deepen the significant contribution Oakland University seeks to make to the larger community through its dynamic and diversifying center for the performing arts.

The School of Performing Arts endeavors, then, to concentrate on the diversification and refinement of 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
Terence E. Kilburn

Administrative Director
Acting Artistic Director

MEMBERS OF THE FACULTY

Alexander N. Gray	Lecturer in Acting
Valerie J. Gray	Lecturer in Technique and Acting
Terence E. Kilburn	Lecturer in Acting
Paul A. D. Lee	Lecturer in Acting
Iris J. MacGregor	Lecturer in Voice
Ada B. Mather	Lecturer in Acting
Christopher A. Ross-Smith	Lecturer in Acting and Voice
Errol Segal	Lecturer in Movement
Gwendolyn I. Sharoff	Lecturer in Technique and Production Supervisor

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 so that students may appear in public performance as soon as their professional attainment is provable. 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 at once Acting Artistic Director of the Academy and of the Theatre, both the disciplines and experience of the resident professional actors and the diversified professional experience of

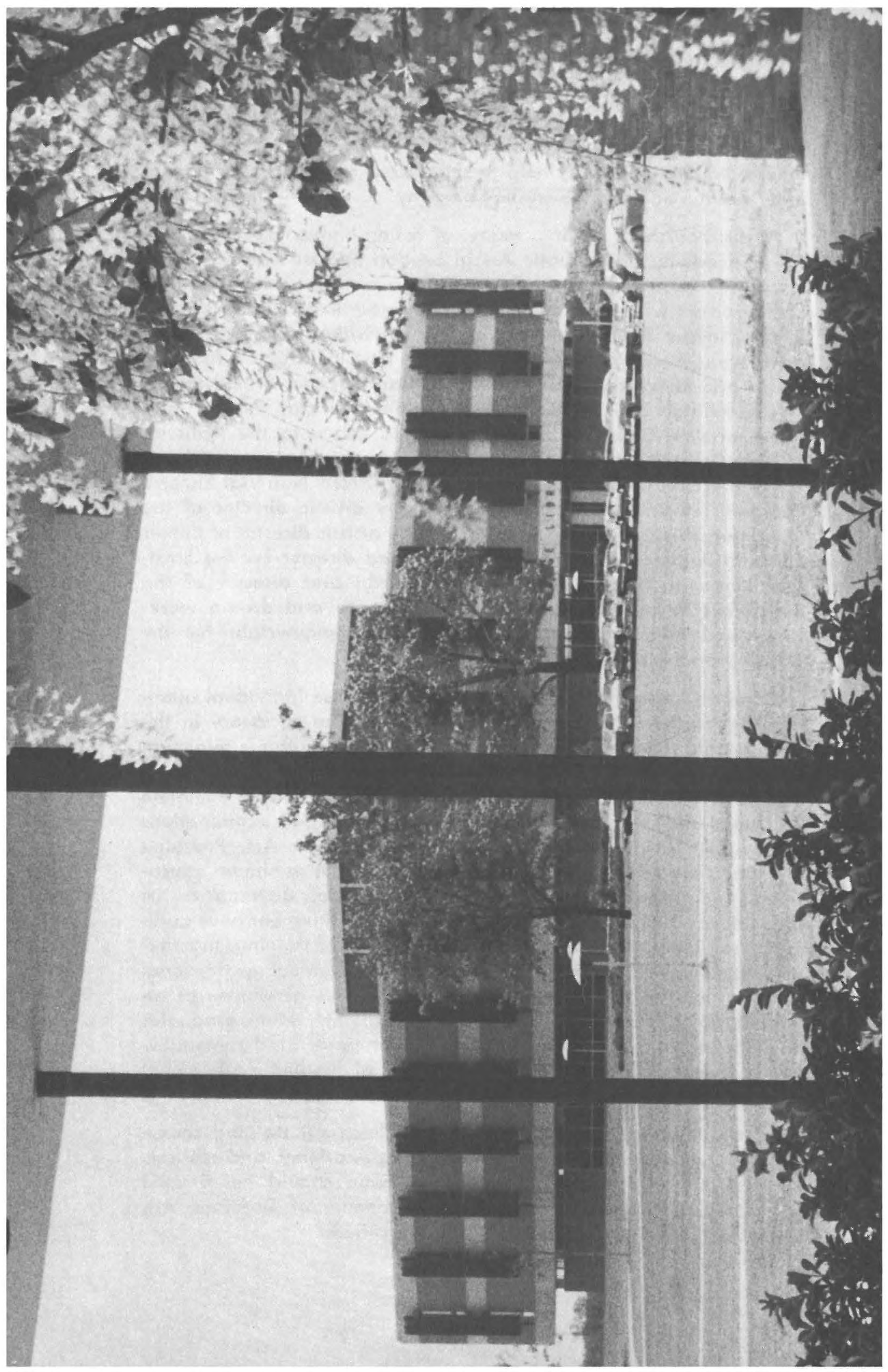
PERFORMING ARTS

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 such visiting members of faculty as J. B. Douglas, frequent movie and television actor in England, Canada, and United States; Johan Fillinger, distinguished Norwegian-American director and Ibsen scholar; Catherine Fleming, a voice coach to the National Theatre Company, London, and vocal adviser to Sir Laurence Olivier; Barry MacGregor, leading actor of the Stratford National Theatre Company of Canada; Douglas Seale, now artistic director of the Goodman Theatre in Chicago and formerly artistic director of Center Stage in Baltimore; Joseph Shaw, actor and director for the Stratford National Theatre Company of Canada and director of the Stratford (Ontario) Shakespeare Festival opera and drama workshop; and Milo Sperber, actor-director and playwright for the British Broadcasting Corporation.

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 in 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 the prospectus of the Academy, and requests for information on applications for audition should be directed to the Administrative Director of the Academy of Dramatic Art, Oakland University, Rochester, Michigan 48063.



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ROBERT G. GAYLOR	Associate Dean
PHILIP Y. HOWARD	Assistant Dean for Technical Services

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M.L.S., University of California (Berkeley);	
M.A., University of Toronto	

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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
SUSAN M. RYBKA B.A., University of Michigan; A.M.L.S., University of Michigan	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
SUSAN K. WEIBEL B.S., Wayne State University; A.M.L.S., University of Michigan	Instructor

The Faculty of the Library directs, staffs, and maintains the University libraries and their collections of books and related materials. The library faculty selects (with the advice of members of the other organized faculties) materials to be added to the Library's collections and is responsible for the acquisition, preparation, and organization of these materials.

Faculty of the Library hold appointments as public services or technical services librarians. The Division of Technical Services is a centralized unit, responsible for the acquisition, cataloging, and

FACULTY OF THE LIBRARY

classification of books, periodicals, microforms, documents, and other forms and types of library material. The Division of Public Services, on the other hand, operates in terms of controlled decentralization, offering a variety of direct services to the academic public.

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. In these ways, the library faculty not only support the efforts of instructors and researchers attached to the other organized faculties, but also assist the individual student in the proper utilization of library resources for self-education. In this period of rapidly expanding knowledge, no university student can be regarded as an educated person until he or she has learned the educational value of an academic library. It is a proper function of the academic librarian to participate with the students in their attempts to search out the many routes to knowledge.

Similarly, the library faculty provides assistance to teachers and scholars in a variety of ways, making every effort (subject to fiscal limitations) to secure for them the library materials needed to support academic programs and faculty research. Most importantly, library faculty are significantly involved in the preparation of subject bibliographies and periodical listings as aids to individual scholars, academic departments, and library administrators.

The Faculty of the Library also have and exercise a research function outside of the immediate specificities of bibliographic support of current curricula and faculty research. The library faculty are accordingly 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, out-of-print, and otherwise valuable books, periodicals, and documents. They thus round out the informational resources of the University both in and out of areas of immediate curricular concern.

Library faculty are involved in continuing research in all the major disciplinary 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

FACULTY OF THE LIBRARY

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 informed of the latest developments in academic libraries. They are accordingly making persistent efforts to provide improved services, to develop collections of high quality, and to find superior ways, in their field of knowledge, to realize the values of educational excellence which are basic to the University's purpose.

DIVISION OF CONTINUING EDUCATION

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Ph.D., Harvard University

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Ph.D., Syracuse University

ELEANOR DRIVER Associate Director, Continuum Center

PRISCILLA JACKSON Assistant Dean for Developmental Programs

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B.A., University of Michigan

VIRGINIA MENZIES Registrar

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B.A., University of Michigan

DOROTHY C. OWEN Associate Director of Conferences
B.S., Purdue University

MARY B. SCHULTZ Director of Alumni Relations
B.A., Oakland University; M.A., Michigan State University

MARGARET TWYMAN Administrative Assistant to the Dean

HARRY B. VAN HOOK, JR. Assistant Dean for Courses and
Director of Management and Business Programs
A.B., University of Michigan; M.A., University of Michigan

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 offering of courses, conferences, and special events open to adults of the community, is thus an integral part of the University function.

CONTINUING EDUCATION

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, 215 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. A Pre-College Study Center program is offered each summer to acquaint college-bound students with campus life, to sharpen their study skills, and to increase their proficiency in reading, composition, languages, and science. Opera workshops and preview lectures on the Meadow Brook Music Festival and the Meadow Brook Theatre are among the many cultural enterprises of the Division.

The Division directs the Continuum Center for Women, which offers a unique and meaningful psychological testing program and specialized counseling service, and the Alumni Relations Depart-

CONTINUING EDUCATION

ment, which publishes regular issues of the *OU Alumni News*, conducts annual alumni reunions, administers the alumni fund drive, and maintains records of the Alumni. An Alumni Council works closely with the Alumni Relations Office in establishing policies and procedures.

The Division also administers the Alumni Education Department which counsels former students in their choice of purposeful and planned programs of lifelong learning.

Course catalogs and informational brochures on programs are available upon request. Call 377-2000, extension 2171, or write the Division of Continuing Education, Oakland University, Rochester, Michigan 48063.

ADMISSION, ADVISING, REGISTRATION, AND GRADING

REQUIREMENTS FOR ADMISSION*

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

Under the Michigan Association of Schools and Colleges Program, Oakland accepts students from among the more able graduates of accredited high schools without regard to the pattern of subject matter completed, provided they are recommended by their high school principals.

APPLICATION FOR ADMISSION

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

Students who are residents of the State of Michigan are strongly urged to present prior to registration either Scholastic Aptitude Test (SAT) results or scores from the American College Testing (ACT) Program. These test results will be used in advising students about courses of study and in assisting them to assess their qualifications for alternative course sequences within the curriculum. Students who are unable to submit results from either of the two national testing programs will be required to take tests at the University, administered by the Office of Psychological Services, prior to registration. There is a service charge for the University testing program.

*For requirements for admission to the Academy of Dramatic Art, write to the Academy of Dramatic Art, Oakland University, Rochester, Michigan 48063.

**Students planning majors in sciences, mathematics, engineering, or management must present at least three years of mathematics (algebra 1½ units; geometry 1 unit; and trigonometry ½ unit).

ADMISSION AND GRADING

APPLICATION FOR ADMISSION BY OUT-OF-STATE STUDENTS

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

APPLICATION FOR ADMISSION BY FOREIGN STUDENTS

A student from abroad should write to the Director of Admissions, Oakland University, Rochester, Michigan 48063, at least a year before the time he or she hopes to be admitted. He or she will be sent instructions and an application form, which he or she should complete and return at once. When the application is approved, he or she will receive a certificate of permission to enter the University. However, prior to the student's official registration, proof of adequate medical insurance plus a signed authorization for emergency medical treatment must be on file in the University Health Center. These forms will help the student in making application for his or her passport and a student visa.

Foreign students transferring from other institutions in the United States must apply for permission to do so through the Immigration office nearest them, using form I-538, form I-20 from Oakland University, and the arrival-departure record (I-94), before they arrive to attend Oakland University.

APPLICATION FOR ADMISSION TO UNDERGRADUATE PROVISIONAL AND GUEST ADMISSION STATUS

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

TRANSFER ADMISSION FROM SENIOR INSTITUTIONS

A student is eligible to transfer to Oakland from another college only if he or she is entitled to an honorable dismissal without social

ADMISSION AND GRADING

or academic probation. He or she must complete an application form, have his or her dean of students complete the Personal Qualification form, and request the registrar of his or her institution to send an official transcript of his or her record. Each application will be considered on its merits.

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

TRANSFER ADMISSION FROM COMMUNITY COLLEGES

Students planning to transfer to Oakland University from the community colleges are strongly urged to apply for admission no later than the beginning of the semester preceding the one in which they wish to enroll. For example, students who wish to begin their studies at Oakland in the Fall Semester are urged to file applications during the preceding spring, preferably by May 1 and no later than July 15. Applications may continue to be processed after the recommended deadline of July 15, but the University cannot guarantee late applicants all the services normally extended to the transfer student. These services include prompt review of the application for admission; a prompt report on advanced standing and academic status, which reflects the credits already earned at the community college (and other academic institutions); completion of an advising and orientation program; and registration in the particular courses needed to make orderly progress toward the bachelor's degree. Those who wish to enroll in the Winter Semester are requested to file their applications by September 1 and no later than October 15. Students seeking admission to the Spring or Summer Sessions are asked to observe comparable schedules.

A student may transfer as many as 62 academic credit hours earned at a community college. Transfer credit will be granted only for those courses in which a student received a C or 2.0 grade or better. Transfer credit will be granted for technical and applied science courses only where the courses are directly relevant to the intended major. Transfer credit cannot be granted for courses in physical education since there is no counterpart to such courses in the Oakland curricula.

It should also be emphasized that transfer students from the community colleges are eligible for the same financial aid programs as entering freshmen. This includes eligibility for grants, scholarships, low interest loans, and campus employment. This assistance is awarded on the bases of need and ability.

Recommended Preparation for Transfer

Prospective transfer students from the community colleges are urged to select courses at the community college which will enable them to make orderly progress toward the fulfillment of the general education, language or symbolic systems, and major requirements for graduation from Oakland University. In each case, the student who intends to transfer is advised to choose courses at the community college which closely correspond to the academic disciplines noted below. The prospective transferee will not be expected to have completed courses exactly equivalent to comparable courses offered at Oakland in order to obtain transfer credit, but only to have completed similar courses directly related to the disciplines listed. It should be noted that it is particularly important that prospective transfer students complete the requirement of two semesters of English composition prior to transfer to Oakland University.

A. General Education

1. English Composition — two semesters.
2. Fine Arts: Theatre, Art, and/or Music — one or two semesters. (Students who elected to take only two semesters in science and/or mathematics must take two courses in the fine arts, choosing two separate arts.)
3. Literature — one semester.
4. Social Sciences — two semesters.
(Students planning a career in elementary or secondary education should complete one semester in psychology and one semester in one other social science.)
5. History and/or Philosophy of Western Civilization — one semester.
6. Area Studies (China, India, Africa, Latin America, or other) — one semester.
7. Science and/or Mathematics — two or three semesters.
(See Fine Arts, above.)
8. Symbolic Systems — two semesters.
(All students are expected to gain some familiarity with the structure and use of a system of symbols other than the English language. This requirement may be satisfied by earning 8 credits in any of the following ways:
(a) Two courses in any one foreign language.

ADMISSION AND GRADING

- (b) Two 4-credit courses in computer programming.
- (c) Any 8-credit combination of courses in linguistics, mathematics, symbolic logic, or philosophy of language.)

B. Major Field of Concentration.

All major fields normally require approximately 36 to 48 semester hours in courses within the major for graduation; engineering, education, management, and some departments in the College of Arts and Sciences (including economics, linguistics, and the physical and life sciences) also require additional course work in related fields. Some departmental majors entail a language requirement. The prospective transferee is strongly advised to consult the appropriate portions of the *Oakland University General Catalog* for the requirements of the intended major, complete some basic courses prerequisite to those requirements, and in general pursue a course of studies at the community college that will prepare him or her for acceptance and orderly progress toward graduation in the preferred major program.

Requirements for students, including transfer students, who elect an independent concentration instead of a major are outlined on pp. 54-56 and pp. 218-19 of this catalog.

ADVANCED PLACEMENT

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

HEALTH CERTIFICATION REQUIREMENT

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

ADMISSION AND GRADING

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

ORIENTATION

Freshmen orientation is designed to introduce new students to academic programs and to campus life at Oakland University. The summer orientation program provides an opportunity for entering students to meet other students and faculty who can help them to anticipate the opportunities afforded by a university education and the responsibilities inherent in receiving such an education. From these meetings freshmen gain some insight into the distinctive character of Oakland University. At orientation students take placement tests, receive academic advising, participate in campus activities, and attend information meetings which are helpful in acclimating students to college. All new students, except those from other states and foreign countries, are expected to attend one of the summer orientation programs. Out-of-state and foreign students will participate in an orientation program after their arrival on campus and before entering classes in the fall. A fee of \$35 is charged to cover the cost of freshmen orientation.

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

ACADEMIC ADVISING

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

ADVISERS FOR FRESHMEN

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

(a) To provide a meaningful description and interpretation of the academic programs at Oakland University.

ADMISSION AND GRADING

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

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

ADVISERS FOR UPPERCLASSMEN

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

Upperclassmen who have questions about the advising program should direct them to the Advising Office.

READMISSION

A student whose registration at Oakland is interrupted for one or more semesters must apply for readmission. Application should be made to the Office of Resource Services at least one month prior to the beginning of the semester the student expects to re-enter. Students who have attended another college or university during their absence from Oakland must pay a \$10 application fee. A check in this amount, payable to Oakland University, should accompany the application.

ADMISSION AND GRADING

COURSE AND CREDIT SYSTEM

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

PETITION OF EXCEPTION

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

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

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

CHANGE OF COURSES

To drop a course, an upperclassman must have the permission of the instructor. A freshman student should secure the signature of both the instructor and his or her adviser. Denial of permission is subject to review by the dean of the appropriate school or college. Courses may be dropped at any time during the term the student decides not to complete a course. The student who decides to drop a course will receive an "N" grade. The dropping of courses for which refund of fees is claimed must be processed on a "drop-and-add" slip through the Office of the Registrar. (See also Refund of Fees pp. 299-300.) A student who wishes to drop a course after refund deadlines should request assignment of an "N" grade from his or her instructor.

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

ADMISSION AND GRADING

MODIFIED MAJOR

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

REPEATING COURSES

With permission of his or her adviser, a student may be allowed to repeat a course. No course may be repeated more than twice. The last grade earned in a course will be used to compute the student's grade point average.

COURSE PROFICIENCY

Any student giving evidence of proficiency in a course in which he or she is not registered may be granted permission to demonstrate this proficiency upon petition to the appropriate department chairman or program director. If the results are satisfactory, he or she may receive exemption from this course but will receive no academic credit or grade for the course. (The failure to grant credit does not apply to courses completed in the Advanced Placement Program of the College Entrance Board.)

In exceptional cases and upon recommendation from the chairman or program director, the dean of the appropriate school or college may award credit, provided that such credit does not exceed 20 per cent of the credits earned for a degree at Oakland. The credit will be entered in the "transfer credit" column on the student's record.

GRADES AND GRADE POINT SYSTEM

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

ADMISSION AND GRADING

Oakland University numerical grades may be described as follows:

4.0	excellent
3.0	good
2.0	satisfactory
1.0	inadequate but receives credit

I—INCOMPLETE

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

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

N—NO GRADE

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

P—PROGRESS

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

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

S—SATISFACTORY

The grade of "S" (Satisfactory) is given in certain selected

ADMISSION AND GRADING

courses and is meant to imply 2.0 or better. This grade carries credit toward graduation but is not used in computation of the grade point average.

GRADE POINT AVERAGE

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

ACADEMIC RECORD

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

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

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

ACADEMIC HONORS LIST

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

ACADEMIC PROBATION AND DISMISSAL POLICY

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

SEPARATION FROM THE UNIVERSITY

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

WITHDRAWAL

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

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

FINANCIAL AID AND SCHOLARSHIPS

SCOPE OF THE PROGRAM

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

PROCEDURES FOR APPLICATION

The University is a member of the College Scholarship Service and requires the parents of all students seeking assistance to file a confidential financial statement with that organization. Submitting this statement is necessary so that the degree of need may be determined. The forms to be used may be obtained from the applicant's high school, from the University, or by writing to the College Scholarship Service, Box 881, Evanston, Illinois 60204.

Stipends vary and may range from an amount equal to full tuition, room, and board, to a minimal amount. In some cases a small honorary stipend is offered in recognition of extraordinary academic preparation for college. Applicants need not apply for a specific scholarship. All students who are Michigan residents and who demonstrate need are eligible for Student Aid Grants.

REQUIREMENTS FOR RETAINING AID

Students are required to make written application for renewal of all financial aid each year and also to prepare a renewal confidential financial statement each year. Oakland University Scholarship Aid is offered for a maximum of eight semesters.

FINANCIAL AID FOR FRESHMEN

In addition to the general financial aid offerings, Oakland University has a competitive scholarship program which is open to all high school seniors. The competitive examination is held annually during the month of November. It is not necessary for a student to have been admitted to Oakland to participate in the competition. Winners for six premium scholarships are selected by a scholarship committee. Included in this group of scholarships

FINANCIAL AID

is one General Motors scholarship with a stipend up to \$2,000 per year for four years. This award is made to freshmen on alternate years.

FINANCIAL AID FOR TRANSFER STUDENTS

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

SPECIAL AND ENDOWED SCHOLARSHIPS

Funds for the Oakland University Scholarship Program are derived from the general budget and also from a fund-raising group of women in the greater Detroit area. Additional funds for scholarships have been provided in varying amounts by individuals, groups, and corporations.

Mr. and Mrs. Benjamin Anibal Scholarship

This endowed scholarship is to be awarded to a student in engineering.

Mary Fogarty Anibal Memorial Scholarship

This fund has been established in memory of the late Mary Fogarty Anibal. Earnings will be used to support an endowed scholarship.

Alvin M. Bentley Foundation Scholarship

A one-year award is made to a Michigan high school graduate. The amount of the scholarship is up to \$750 for a resident student or up to \$500 for a commuting student.

Campbell-Ewald Scholarship

This endowment fund was established to support the general scholarship fund.

Consumers Power Scholarship

An annual one-year scholarship of \$300 is awarded to a freshman student coming from an area served by Consumers Power Company.

The Harlow H. Curtice Memorial Scholarship

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

FINANCIAL AID

George H. Gardner Scholarship Fund

This fund will provide a scholarship award of approximately \$750 for a student from the local area.

General Motors Scholarship

One award is made every other year to an entering student under the nationwide scholarship program of the General Motors Corporation. The award is worth from \$200 to \$2,000 a year, depending on need.

Fred V. Haggard Memorial Scholarship

A two-year award renewable on the basis of satisfactory academic performance and financial need.

The Mrs. C. Allen Harlan Scholarship

An endowed fund offers an annual award to an entering freshman.

Herbert M. Heidenreich Scholarship Fund

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

The Ormond E. Hunt Memorial Fund

A fund established in memory of the late Ormond E. Hunt supports an endowed scholarship for a student in engineering.

Isaac Jones Scholarship Fund

This fund was established in memory of Isaac Jones, the first black graduate of the University. The Isaac Jones Scholarship will be awarded annually to a promising black student.

Koskinen Foundation Scholarship

This scholarship is awarded to a student who has reached junior or senior standing.

Mr. and Mrs. Roger M. Kyes Scholarship in English

One award worth approximately \$400 a year is given annually to an upper-class student majoring in English.

John A. MacDonald Scholarship Fund

One award is to be offered to a student of government.

Mildred Byars Matthews Memorial Scholarship in Art History

This fund has been established in honor of a former member of the faculty of Oakland University to create an endowed scholarship for an outstanding art history major.

Pontiac Central High School Scholarship

Established by Pontiac Central High School faculty and students, this award of approximately \$250 is made annually on the basis

FINANCIAL AID

of competitive examination. Both entering and enrolled students who are graduates of that high school are eligible.

Gladys Rapoport Scholarship

A \$100 scholarship given by Mr. and Mrs. Douglas Bastian (Oakland '68) for a student active in residence hall government.

Village Woman's Club of Birmingham Scholarship

An annual award is made to a woman student from Oakland County.

Ruth E. Wagner Endowment Fund

This endowment fund was established to support the general scholarship fund.

A. Glen Wilson Endowment Fund

This endowment fund was established to yield earnings to benefit the general scholarship fund.

Alfred G. Wilson Honor Scholarship

Established in memory of the late Alfred G. Wilson, this award is worth up to \$1,000 and will be presented annually to an incoming freshman who may retain the scholarship for four years if his scholastic record is maintained and if financial need exists.

Matilda R. Wilson Honor Scholarship

Established by the Friends of Oakland University, this award is worth up to \$1,000. The award is made each year to a first-year woman student who may retain the scholarship for four years if her scholastic record is maintained and if financial need exists.

Thomas E. Wilson Scholarship

This endowment fund was established to support the general scholarship fund.

LOANS

Several loan funds are available for assistance to students in good standing on the basis of need. The University participates in two government programs, the National Defense Education Act Program and the Federal Guaranteed Loan Program both of which offer loans at low interest rates and long repayment periods.

Short-term loan assistance is provided from the following funds:

Century Brick Loan Fund

David R. Robson Memorial Loan Fund

Pontiac Kiwanis Club Loan Fund

C. Allen Harlan Loan Fund

FINANCIAL AID

H. H. Corson Loan Fund
Joan Selby Memorial Loan Fund
Henry Tiedeman Loan Fund
Greater Pontiac Centennial Student Loan Fund
Li Russ Club Student Loan Fund
Walter K. Willman Loan Fund
W. Everett Grinnell Loan Fund
Oakland County Engineering Society Loan Fund
Student Activities Coordinating Council Loan Fund
Woman's Literary Club of Pontiac Loan Fund
John A. MacDonald Loan Fund
Lathrup Village Women's Club Fund
Piety Hill Chapter of the Daughters of the American Revolution
of Birmingham Loan Fund
Paul Solonika Loan Fund
Wm. Spickler Memorial Loan Fund
George Higgins Loan Fund
James Mangrum Loan Fund
Pat Dandurand Memorial Loan Fund
Civitan Loan Fund
Alumni Loan Fund
Insurance Women of Detroit, Inc. Loan Fund
Michael Werenski Memorial Loan Fund

PART-TIME EMPLOYMENT

Although demand almost always exceeds supply, on-campus jobs of varying kinds and durations have been provided for over 1,500 students at some time during each school year. Students who wish employment should register with the Student Employment Office. Most students who have part-time employment work between 10 and 20 hours per week.

COURSE FEES AND OTHER FEES

GENERAL POLICY

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

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

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

COURSE FEES AND SPECIAL FEES

Course fees for both undergraduates and graduates are assessed each semester on the basis of the credit value of the courses carried, as follows:

Credits	Michigan Residents		Out-of-State Residents	
	Per Credit	Total	Per Credit	Total
21	\$19.50	\$409.50	\$46.50	\$976.50
20	19.50	390.00	46.50	930.00
19	19.50	370.50	46.50	883.50
18	19.50	351.00	46.50	837.00
17	19.50	331.50	46.50	790.50
16	19.50	312.00	46.50	744.00
15	20.50	307.50	48.50	727.50
14	21.50	301.00	50.50	707.00
13	22.50	292.50	52.50	682.50
12	23.50	282.00	54.50	654.00
11	24.50	269.50	56.50	621.50
10	25.50	255.00	58.50	585.00
9	26.50	238.50	60.50	544.50
8	27.50	220.00	62.50	500.00
7	28.50	199.50	64.50	451.50
6	29.50	177.00	66.50	399.00
5	30.50	152.50	68.50	342.50

FEES

4	31.50	126.00	70.50	282.00
3	32.50	97.50	72.50	217.50
2	33.50	67.00	74.50	149.00
1	34.50	34.50	76.50	76.50

SPECIAL FEES

Undergraduates who register for 10 or more credits are charged an additional \$31 (\$15 health service fee, \$10 student center fee, \$5 activity fee, and \$1 Wilson Memorial Library fee).

Undergraduates who register for less than 10 credits will be charged an additional \$12.50 (\$7.50 health service fee and \$5 student center fee).

Graduates who register for 10 or more credits are charged an additional \$25 (\$15 health service fee and \$10 student center fee).

Course fees and special fees must be paid in full at registration.

ENROLLMENT DEPOSIT

Within three weeks after notification of admission, an enrollment deposit of \$50 must be paid. This deposit will apply to the orientation fee and the balance to course fees. One-half of the deposit is refundable if a student notifies the University before April 1 that he or she does not intend to enroll. No refunds will be made after that date.

OTHER FEES

APPLICATION FEE

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

LATE REGISTRATION FEE

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

ORIENTATION FEE

A fee of \$35 is charged to all freshman students to cover the cost of the three-day freshman orientation held in the summer.

FEES

A fee of \$10 is charged to transfer students for a one-day pre-school orientation for transfers.

PARKING FEE

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

ROOM AND BOARD FEES

The residence halls are financially self-supporting. Room and board fees reflect actual cost of operation and are established by the University's Board of Trustees. The 1970-71 rate was \$525 per semester. Students should anticipate an increase for the 1971-72 academic year. An advance payment on room and board of \$100 will be due during the month of August. The balance of the room and board fee is due at registration or may be paid in three installments, the first of which is due at registration. The second and third installments are due on the first day of the two months following registration. If a student withdraws from the University, housing fees are refunded on a prorated basis.

HOUSING DEPOSIT

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

REFUND OF FEES

A student who withdraws from the University or drops a course which reduces his or her total credit load will receive refund of fees according to the following schedules.

REFUNDS FOLLOWING WITHDRAWAL FROM THE UNIVERSITY

1. Through the last day for adding courses, a full refund of fees will be granted.

FEES

2. After the last day for adding courses and before the middle of a semester or session, one-half of the regular course fees and special fees and all of the non-resident fee will be refunded.
3. No refunds will be given after the middle (as established by the academic calendar) of the semester or session.

REFUNDS FOR COURSES DROPPED

1. Through the last day for adding courses, fees will be refunded in full for the value of the net credits dropped.
2. After the last day for adding courses and before the middle of the semester or session, one-half of the regular course fees and all of the non-resident fee will be refunded; the amount of the refund will be based upon the value of net credits dropped.
3. No refunds will be given after the middle of the semester or session.

OUT-OF-STATE TUITION RULES

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

ESTIMATED EXPENSES

The cost of attending Oakland University is moderate. For a commuter student who is a resident of Michigan, the total cost of course fees, books, special fees, and transportation will likely be just over \$600 per semester.

FEES

The same basic costs for a Michigan student living on campus would approximate \$952 for course fees, books, special fees, room and board. For an out-of-state student living on campus the same items would cost about \$1,384 per semester.

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

	Michigan		Out-of-State
	Commuter	Resident	Resident
Course Fees (16 credits)	\$312.00	\$312.00	\$744.00
Books, Supplies, Special Fees	115.00	115.00	115.00
Room and Board		525.00	525.00
Local Transportation	200.00		
Total	\$627.00	\$952.00	\$1,384.00

RESIDENCE HALLS: FACILITIES AND COSTS

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

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

RESIDENCE FACILITIES

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

RESIDENCE HALLS

lounge on each floor, and several multipurpose areas. Hamlin and Vandenberg Halls provide a variety of suite plans of accommodation. Anibal House and Hill House are women's halls; Fitzgerald House and Van Wagoner Hall are men's units. Pryale House, Vandenberg Hall, and Hamlin Hall are coeducational units in which men and women share academic, social, and recreation facilities.

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

FOOD SERVICE

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

GENERAL POLICY

The University requires that all full-time unmarried students (that is, unmarried students registered for 12 or more credits) who are under the age of twenty-one and who do not commute from the residence of their parents or legal guardian must live in University housing. However, seniors under twenty-one years of age and students who will attain the age of twenty-one during the Fall or Winter Semester may live in housing off campus with parental consent. Students must register the address of their actual residence with the Office of the Registrar and notify this Office of any change of residence which takes place during the school year.

RESIDENCE HALLS

ROOM AND BOARD FEES AND CONTRACTS

The residence halls are financially self-supported. Room and board fees reflect the actual cost of operation and are established by the University's Board of Trustees. The 1970-71 rate was \$1,050.00 for the academic year. Students should anticipate an increase in rates for the 1971-72 school year. If a student signs a housing contract prior to or during the Fall Semester, that contract is binding for both the Fall and Winter Semesters. If the contract is signed during the Winter Semester or Spring or Summer Session, it is binding for the single semester or session. An advance payment on room and board will be due about one month before the opening of the Fall Semester. The balance of room and board fees are payable at registration each semester or in three payments, the first due at registration and the second and third due the first day of each of the next two months. If a student withdraws from the University, housing fees are refunded on a prorated basis.

APPLICATION FOR RESIDENCE

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

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

CHECK-IN

Returning students may occupy their rooms beginning with the day preceding registration for each semester and session; new students beginning with the day preceding freshman orientation

RESIDENCE HALLS

and New Student Week activities. Rooms and board are not provided during official recesses as listed in the University calendar or between semesters.

OFF-CAMPUS HOUSING

The University is attempting to assist students in locating rooms, apartments, and houses. Students will also find general information and counseling available at the Community Services Office concerning any areas of off-campus housing which present problems.

STUDENT SERVICES

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

THE DIVISION OF STUDENT AFFAIRS

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

Because services and agencies of the Division of Student Affairs relate to many areas and aspects of student life, reference to them is spread over many sections of this catalog. Specifically, for information on academic advising, see pp. 285-86; for information on academic standing, withdrawal, and readmission policies, see pp. 290-91; for information on student housing, see pp. 302-5; for information on financial aid, see pp. 292-96; for information on placement, see p. 308; for information on student health, see p. 308; for information on physical education, see pp. 312-14; for information on the various facilities and activities in the Oakland Center, see p. 314.

THE OFFICE OF STUDENT SPECIAL SERVICES

The Office of Student Special Services is designed to provide academic support for the student who needs special assistance for

STUDENT SERVICES

a successful academic experience at Oakland. This Office is staffed with tutors, professionally trained counselors, and curriculum innovators.

ACADEMIC SUPPORT CENTER

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

READING CENTER

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

WRITING CENTER

The Writing Center is designed to assist students in improving their writing competence. Members of the English faculty and a staff of graduate and undergraduate assistants accept students who enroll voluntarily in the Center and students who are referred by Freshman Exploratory instructors or academic advisers. Students in the latter category are enrolled in ENG 009, Aids to Expository Writing, in which "S" (Satisfactory) or "N" (No grade) grades are awarded.

Grades awarded in Freshman Exploratories reflect the grades awarded in ENG 009.

STUDENT SERVICES

HEALTH CENTER AND STUDENT INSURANCE

The Oakland University Medical Center consists of an out-patient department staffed by full-time physicians and nurses, fully equipped emergency room, physical therapy department, laboratory, and twenty-two-bed hospital unit staffed by registered nurses. The facility offers emergency treatment, as well as diagnosis and treatment of both acute and chronic medical problems occurring within the University population. The Center is equipped to provide physical therapy, medication, and a number of laboratory analyses. The infirmary supplies care for acutely ill patients, diagnostic observation, and isolation of patients having contagious diseases.

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

PSYCHOLOGICAL SERVICES

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

OAKLAND UNIVERSITY CHILD CARE CENTER

While attending classes or participating in other campus activities, students who have pre-school children—two and a half through five years old—may leave them for a small fee at the Child Care Center. Complete information may be obtained from the Student Affairs Office.

PLACEMENT AND CAREER ADVISING

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

STUDENT SERVICES

Occupational guidance and counseling is also available through this Office to all undergraduate students who need assistance in making career decisions and who want information regarding options available to them in various fields and professions. A very complete placement library containing descriptive material on career opportunities and the requirements for specific occupations is maintained for students' use.

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

FOREIGN STUDENT OFFICE

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

INFORMATION ON STUDY ABROAD

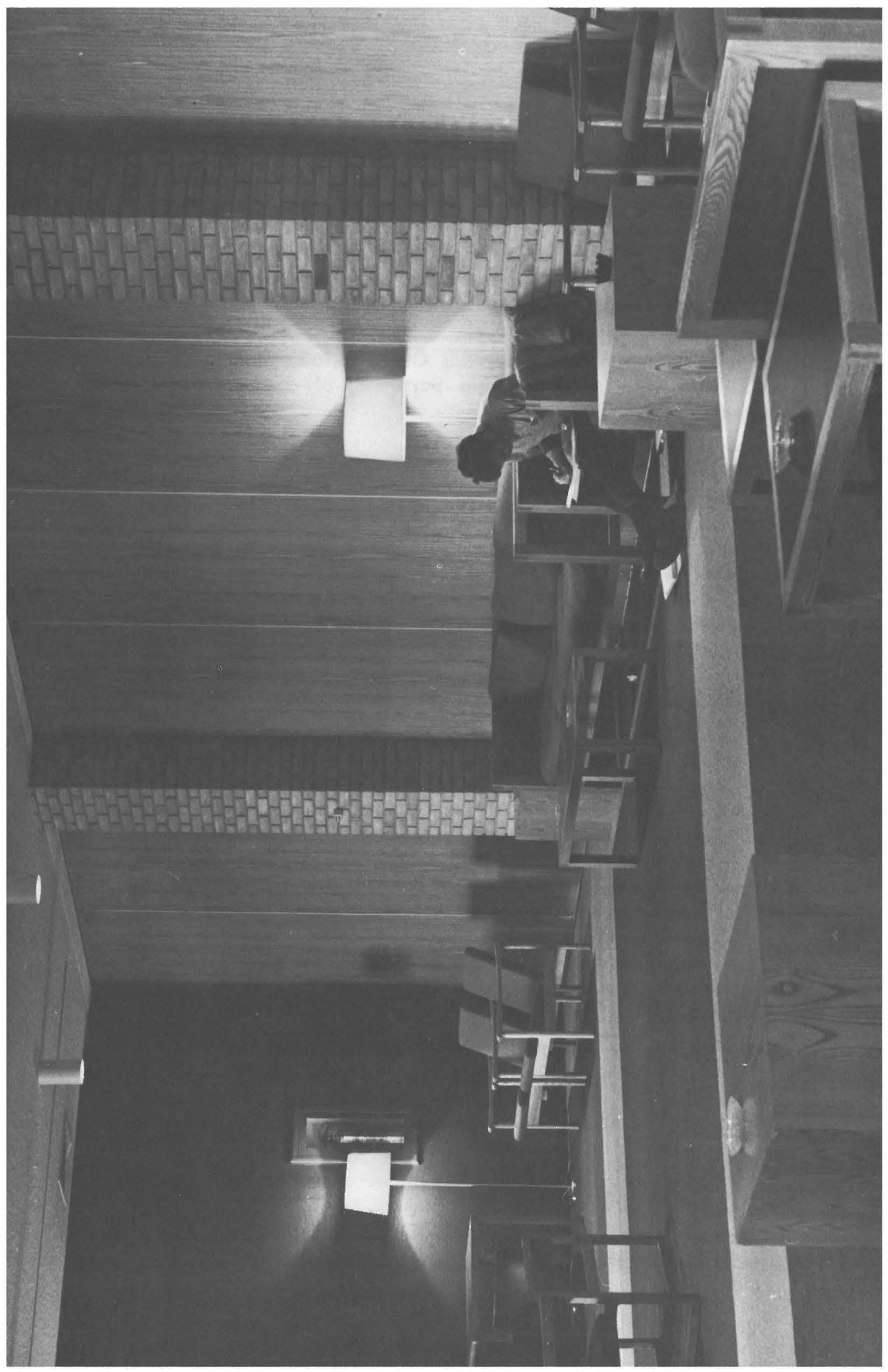
In addition to information on study abroad supplied by individual departments, the Foreign Student Advising Office keeps a file on study and travel opportunities outside the United States for United States nationals. The Foreign Student Adviser has a library of information regarding travel, independent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

VETERANS' BENEFITS

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

SELECTIVE SERVICE

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



STUDENT LIFE

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

STUDENT ORGANIZATIONS

Student organizations at Oakland University are diverse and stimulating. Activities focus on both social and cultural events. Many activities are informal, spur-of-the-moment "happenings." They range from poetry readings to visiting folk singers. More formally, University activities include a regular Film Series, Lecture Series, Fine Arts Festival, and a variety of concerts. Most of these programs are planned by student organizations. Over forty student clubs and organizations all play an important role in campus life and serve to supplement the University's other social and cultural programs. Participation in all student organizations is open to all Oakland University students, both resident and commuter.

Student government is a continually evolving process wherein a student congress is elected and assumes responsibility for a segment of campus life. Student interests in the whole University community are represented through the Congress, the Commuter Council, the Inter-Hall Council and through student membership on significant all-University committees.

DRAMATICS

The Student Enterprise Theatre (S.E.T.) is located at the south end of the campus in the Barn Theatre which was designed and constructed by students. S.E.T. produces one show per semester and

STUDENT LIFE

encourages student participation in all aspects of production. Recent productions include Kopit's *Indians*, Peter Weiss' *Marat/Sade*, *Alice in Wonderland* with an original student score, *Stop the World I Want to Get Off*, and *J.B.* S.E.T. enables students to learn acting, directing, production, set designing and construction, lighting, and costuming. Previous experience is not required to begin working with the organization.

MUSIC

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

STUDENT VOLUNTEER PROJECTS

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

STUDENT PUBLICATIONS

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

THE PHYSICAL EDUCATION PROGRAM

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

STUDENT LIFE

are also outdoor courts, playing fields, and a ski slope with tow.

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

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

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

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

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

Oakland University is pleased to compete with MIAA colleges, Adrian, Albion, Alma, Calvin, Hope, Kalamazoo, and Olivet; Aquinas College, Grand Valley State College, Ferris State College,

STUDENT LIFE

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

OAKLAND CENTER

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

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

MEADOW BROOK MUSIC FESTIVAL

The Meadow Brook Music Festival, held each summer in the Howard C. Baldwin Pavilion of Oakland University, is now internationally recognized. Under the direction of Sixten Ehrling, the Detroit Symphony Orchestra is annually in residence on campus for eight weeks of concerts. Last year, the Orchestra was joined

STUDENT LIFE

by soloists Vladimir Ashkenazy, Itzhak Perlman, Janos Starker, Christa Ludwig, Jeanne-Marie Darré, Peter Serkin, Gary Graffman, Beverly Sills, Gyorgy Sandor, and guest conductors Andre Previn and Antal Dorati. During the last season the Detroit Symphony also played a series of five pops concerts with such well-known guest conductors as Arthur Fiedler, Meredith Willson, and Everett Lee and with soloists Mattiwilda Dobbs and William Justus. Visiting artists in previous seasons have included Isaac Stern, Claudio Arrau, Jerome Hines, Eugene Istomin, Jan Peerce, Maureen Forrester, Philippe Entremont, Anna Moffo, Leonard Rose, Gregor Piatigorsky, Marilyn Horne, Elisabeth Schwarzkopf, Van Cliburn, and many others.

Three years ago, for the first time, the Festival was broadened to include the dance, as the American Ballet Theatre, in residence for a week with a company of ninety, gave six performances of classical and contemporary ballets. Last year, the company returned to the Festival for its third engagement.

Last summer the Festival also pioneered a series of jazz and folk concerts with such solo artists as Sarah Vaughan, Nina Simone, Al Hirt, and Buffy Sainte-Marie and with groups including the Les Elgart Orchestra, the Ramsey Lewis Trio, the Clark Terry Quartet, the Herbie Mann Quartet, the Modern Jazz Quartet, and the Guess Who.

MEADOW BROOK THEATRE

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

During its highly successful past seasons, the Meadow Brook Theatre staged classics of British and American drama, a range of plays by European dramatists, and premieres of some contemporary plays. During the 1969-70 season the company produced plays by Edward Albee, Peter Shaffer, T. S. Eliot, Shaw, Ibsen, Franz Kafka, Tennessee Williams, Chekhov, and O'Neill. The 1970-71 season includes plays by Thornton Wilder, Howard Lindsay and Russel Crouse, Arthur Miller, N. Richard Nash, Edward Albee, and Herb Gardner. The Theatre will also present a play by Molière and the Theatre's first musical comedy, *The Fantasticks*.

STUDENT LIFE

ART EXHIBITIONS; THE UNIVERSITY ART GALLERY

The Department of Art is the principal sponsor at Oakland University of exhibitions of painting, sculpture, and graphics. It presents several changing shows annually in the University's Art Gallery in Matilda Wilson Hall, which also houses the beginnings of a significant permanent and extended-loan collection. The latter has been generously provided by private collectors in New York, the Detroit-Birmingham area, and elsewhere. The Detroit Institute of Arts often cooperates with the University Art Gallery in the presentation of special material. Both the changing exhibitions and the permanent collection stress recent twentieth century art and the sculpture of primitive peoples (especially those of Africa, Oceania, and the pre-Columbian Americas). During the last three years, the Gallery has presented, among other major showings, the Richard Brown Baker collection and the collection of Mr. and Mrs. S. Brooks Barron, both in the area of contemporary art, and an exhibition of African art drawn principally from gifts given to Oakland University by Governor G. Mennen Williams, Mr. and Mrs. Ernst Anspach, and Dr. and Mrs. Hilbert DeLawter.

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

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

UNIVERSITY SPEAKERS SERIES

Oakland University invites to its campus each year outstanding scholars, authors, leaders in public life, and molders of national opinion, in order that members of the University community may hear, discuss, and evaluate a range of informed points of view on subjects of major significance. Speakers on previous series have included Senator Muskie, Bill Baird, Julian Bond, Sidney Cohen, David Riesman, Ralph Nader, and Arthur Koestler.

ADMINISTRATIVE OFFICES

Academic Affairs

Frederick W. Obear, B.S., Ph.D.	Vice President for Academic Affairs and Provost
James H. Bullock, B.A.	Assistant to the Provost
Robert H. Bunger, B.A.	Assistant to the Vice President for Academic Affairs
James E. Davis, B.S., Ph.D.	Assistant Provost
William F. Sturner, B.S., Ph.D.	Vice Provost

Academy of Dramatic Art

Terence E. Kilburn	Acting Artistic Director
Gwendolyn I. Sharoff, B.A., M.A.	Production Supervisor

Admissions

Glen Brown, B.A., M.A.	Director
Edward J. Bagale, B.A.	Admissions Adviser
Joseph Davis, B.S.	Assistant Director
Edward L. Holloman, B.A.	Admissions Adviser
C. Ronald Horvath, B.A., M.A.	Assistant Director
Jerry W. Rose, B.A., M.A.	Associate Director
Jeffrey W. Shurtz, B.A.	Admissions Adviser

Alumni Relations

Mary B. Schultz, B.A., M.A.	Director
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College of Arts and Sciences

George T. Matthews, A.B., M.A., Ph.D.	Dean
Reuben Torch, B.S., M.S., Ph.D.	Associate Dean

Athletics and Physical Education

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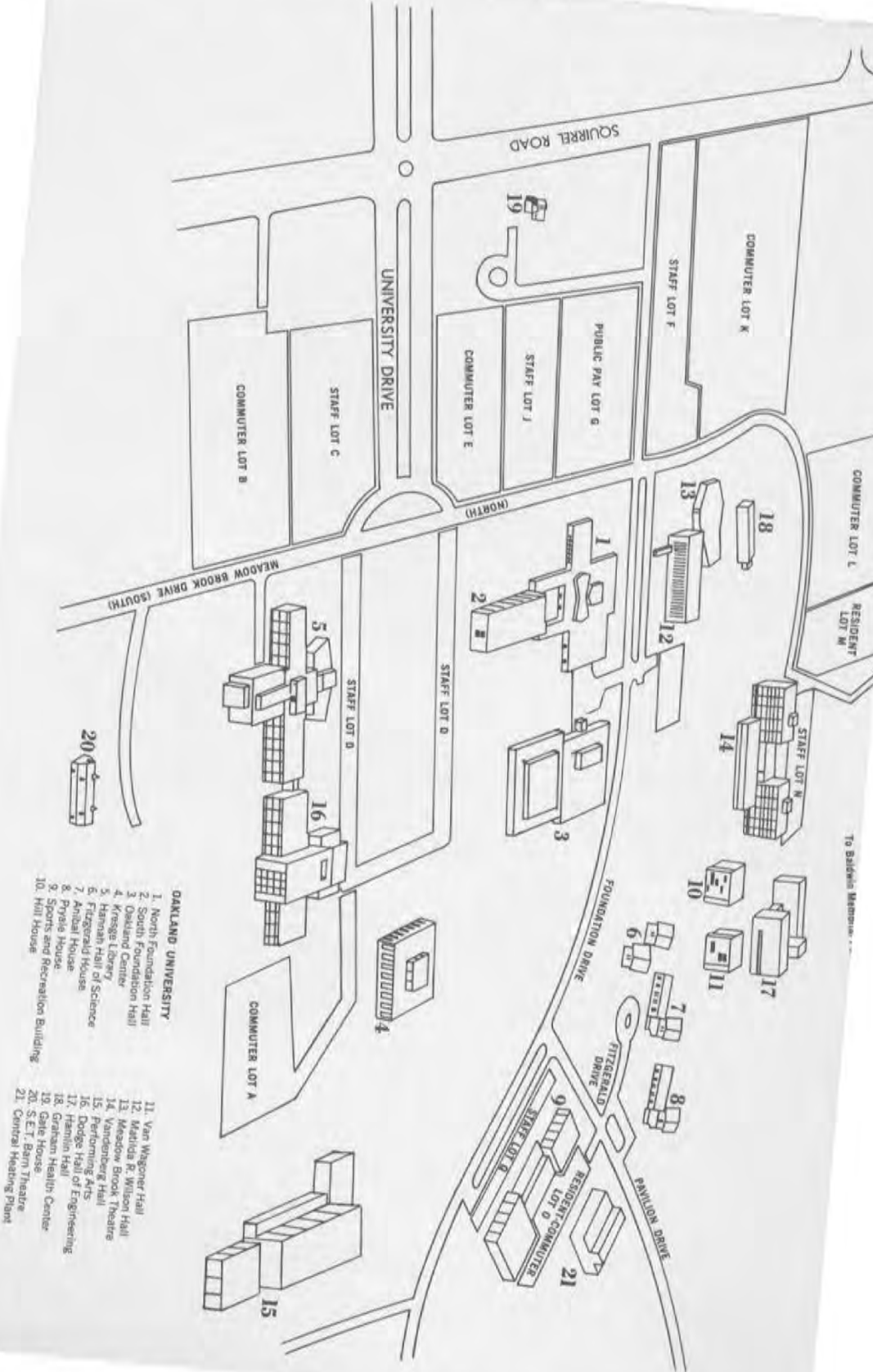
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12. Matilda K. Wilson Hall
13. Meadow Brook Theatre
14. Vandenberg Hall
15. Performing Arts
16. Dodge Hall of Engineering
17. Hanna Hall
18. Graham Health Center
19. Gate House
20. S.E.T. House
21. Central Heating Plant

