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OAKLAND UNIVERSITY
1971 GENERAL CATALOG 1972
ROCHESTER MICHIGAN

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

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Dean of Continuing Education

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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

TABLE OF CONTENTS

Board of Trustees	vi
Administration	vi
Oakland University	1
University Curricula	12
College of Arts and Sciences	15
Department of Art	60
Department of Biological Sciences	68
Department of Chemistry	77
Department of Classical Languages and Literatures	86
Department of Economics	91
Department of English	97
Department of History	107
Department of Linguistics	118
Department of Mathematics	124
Department of Modern Languages and Literatures	134
Department of Music	154
Department of Philosophy	162
Department of Physics	167
Department of Political Science	174
Department of Psychology	180
Department of Sociology and Anthropology	187
Interdepartmental Programs and Miscellaneous Courses.....	195
School of Economics and Management	211
School of Education	228
School of Engineering	247
School of Performing Arts	267
Faculty of the Library	273
Division of Continuing Education	277
Admission, Advising, Registration, and Grading	280
Financial Aid and Scholarships	292
Course Fees and Other Fees	297
Residence Halls: Facilities and Costs	302
Student Services	306
Student Life	311
Administrative Offices	317
Oakland University Foundation	324
Senate Committees and Senate Membership	325
Index	326
Map	Inside Back Cover

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

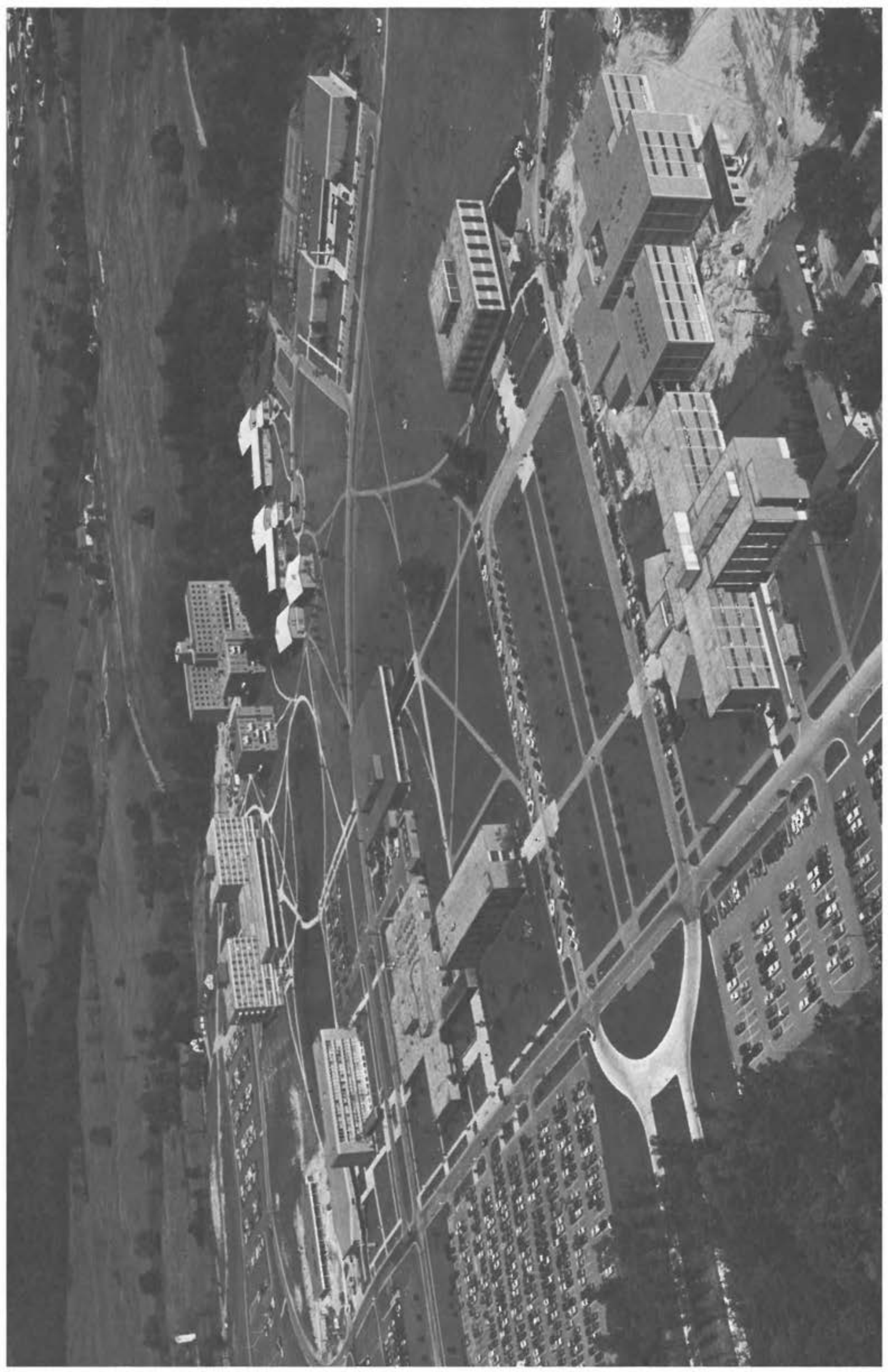
David C. Beardslee	Director of Institutional Research
Glen Brown	Director of Admissions and Scholarships
W. Royce Butler	Dean of the Library
Kenneth H. Coffman	Director of Psychological Services
John E. Gibson	Dean, School of Engineering
Richard C. Habermas	Director, Computing and Data Processing Center
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

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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 Tafraian	Grant and Contract Administrator

STUDENT PERSONNEL ADMINISTRATION

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,

OAKLAND UNIVERSITY

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

OAKLAND UNIVERSITY

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-

OAKLAND UNIVERSITY

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-

OAKLAND UNIVERSITY

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.

OAKLAND UNIVERSITY

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

OAKLAND UNIVERSITY

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

OAKLAND UNIVERSITY

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.

OAKLAND UNIVERSITY

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

OAKLAND UNIVERSITY

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*.

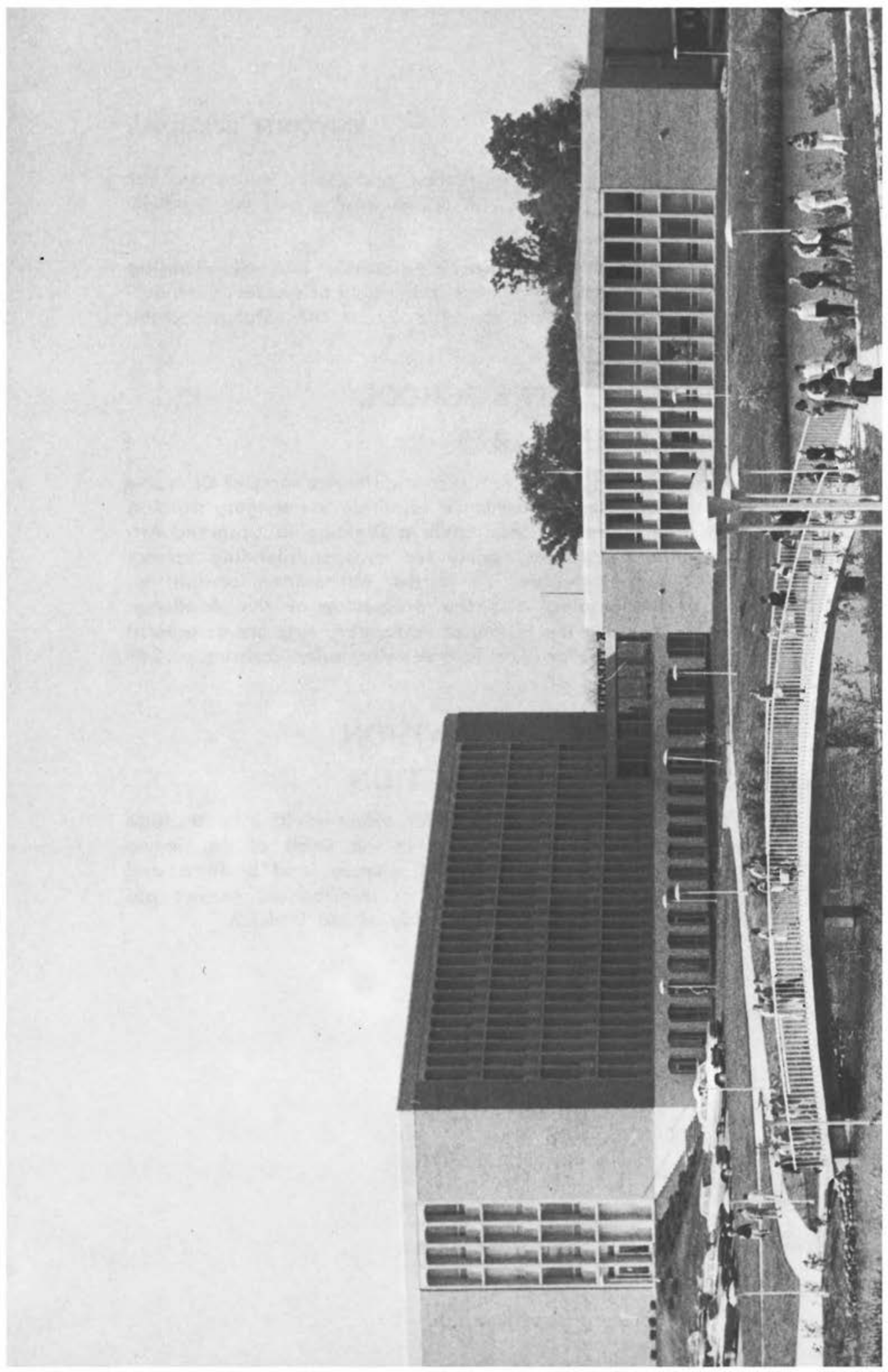
The School of Engineering offers a program of instruction leading to the degree of Master of Science in the field of systems engineering. For further information, consult p. 265 of this catalog and the *Graduate Bulletin*.

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

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ARTS AND SCIENCES

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ARTS AND SCIENCES

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COMMITTEES

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Peter J. Bertocci
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David W. Mascitelli
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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.

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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.)

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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-

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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:

ARTS AND SCIENCES

- 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

ARTS AND SCIENCES

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.)

ARTS AND SCIENCES

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

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

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.)

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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 2

Freshman Exploratory
ART 226
UC 047
Foreign Language

Semester 3

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

Semester 4

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

Semester 5

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

Semester 6

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

Semester 7

Studio Art (400-level)
ART 490
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.

ARTS AND SCIENCES

- 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.

ARTS AND SCIENCES

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,

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

- 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.

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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

ARTS AND SCIENCES

(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

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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).

ARTS AND SCIENCES

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 Old Testament Literature (4 credits)

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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-

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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-

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

- 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)**

ARTS AND SCIENCES

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

DEPARTMENT OF HISTORY

Professors:	Melvin Chernov, 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,

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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-

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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-

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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 ,

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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,

ARTS AND SCIENCES

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, Jouvet, Baty, Dullin, and others. Primarily a study of Claudel, Giraudoux, Anouilh, Montherlant, Camus, Sartre, and the recent experiments of Ionesco and Beckett. Conducted in French.

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.

ARTS AND SCIENCES

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

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

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

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

SPN 285, 286 Survey of Spanish and Latin American Literature (4 credits each)

SPN 285 will be a survey of Spanish literature from El Cid through the twentieth century.

SPN 286 will include major works from Latin America. Lectures and readings in English. Either course may be taken independently of the other. Open to Spanish majors as elective only; does not carry credit toward departmental major.

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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)

ARTS AND SCIENCES

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

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

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

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

MUS 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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

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.

ARTS AND SCIENCES

- 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.