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OAKLAND UNIVERSITY 1970 GENERAL CATALOG 1971 ROCHESTER MICHIGAN

OFFICIAL PUBLICATIONS OF OAKLAND UNIVERSITY

Oakland University Undergraduate Programs General Catalog published annually in April. 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 Director of Business Affairs Career-oriented and Graduate Placement Director**, Placement Office **Continuing Education** Dean of Continuing Education Educational Program, Transcripts, Academic Reports The Registrar Loans and On-Campus Employment Undergraduate Students - Financial Aid Officer Graduate Students - Financial Aid Officer **Scholarships and Grants** New Students - Director of Admissions Upperclassmen - Financial Aid Officer Graduate Students - Dean of Graduate Study **Student Affairs and Services** Undergraduate Students - Vice Chancellor for Student Affairs Graduate Students - Dean of Graduate Study **Student Housing Director of Residence Halls** Telephone: Area Code 313 377-2000

GENERAL CATALOG 1970-1971

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.

April, 1970

Volume XI, No. 1

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UNIVERSITY CALENDAR

1970-1971

Fall Semester

September 8, 9	Tuesday, Wednesday	Registration
September 10	Thursday	Classes begin
November 26-29	Thursday-Sunday	Thanksgiving recess
November 30	Monday	Classes resume
December 16	Wednesday	Classes end
December 17	Thursday	Final examinations begin
December 22	Tuesday	Final examinations end

Winter Semester

January 4, 5	Monday, Tuesday	Registration
January 6	Wednesday	Classes begin
March 4-7	Thursday-Sunday	Winter recess
March 8	Monday	Classes resume
April 15	Thursday	Classes end
April 16	Friday	Final examinations begin
April 21	Wednesday	Final examinations end
April 24	Saturday	Commencement

Spring Session

April 27	Tuesday	Registration
April 28	Wednesday	Classes begin
May 28	Friday	Holiday
June 17	Thursday	Classes end
June 18, 19	Friday, Saturday	Final examinations

Summer Session

June 21	Monday	Registration
June 22	Tuesday	Classes begin
July 2	Friday	Holiday
August 11	Wednesday	Classes end
August 12, 13	Thursday, Friday	Final examinations

UNIVERSITY CALENDAR

1971-1972

Fall Semester

September 7, 8	Tuesday, Wednesda	ay Registration
September 9	Thursday	Classes begin
November 25-28	Thursday-Sunday	Thanksgiving recess
November 29	Monday	Classes resume
December 16	Thursday	Classes end
December 17	Friday	Final examinations begin
December 22	Wednesday	Final examinations end

Winter Semester

January 3, 4	Monday, Tuesday	Registration
January 5	Wednesday	Classes begin
March 2-5	Thursday-Sunday	Winter recess
March 6	Monday	Classes resume
April 13	Thursday	Classes end
April 14	Friday	Final examinations begin
April 19	Wednesday	Final examinations end
April 22	Saturday	Commencement

Spring Session

April 26	Wednesday	Registration
April 27	Thursday	Classes begin
May 30	Tuesday	Holiday
June 16	Friday	Classes end
June 19, 20	Monday, Tuesday	Final examinations

Summer Session

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.

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BOARD OF TRUSTEES

Oakland University and Michigan State University operate under the jurisdiction of a constitutional body known as the Board of Trustees. The eight elected members serve eight-year terms. Two are elected biennially on partisan ballots from the state at large.

The President of Michigan State University and Oakland University is appointed by the Board and is by constitutional provision the presiding member of that body. The Board also appoints a secretary and a treasurer. Currently serving as trustees are:

The Honorable Frank Hartman The Honorable Warren M. Huff The Honorable Blanche Martin, D.D.S. The Honorable Frank Merriman, Vice Chairman The Honorable Stephen S. Nisbet The Honorable Don Stevens, Chairman The Honorable Kenneth W. Thompson The Honorable Clair White

Ex-officio members and officers of the Board: Clifton R. Wharton, Jr., Presiding Officer Jack Breslin, Secretary Roger Wilkinson, Acting Treasurer

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Robert J. McGarry Dicron Tafralian

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in the College of Arts and Sciences



ACADEMIC STRUCTURE AND PROGRAMS

Oakland University, an institution supported by the State of Michigan, reflects in its academic structure and in its underaraduate and araduate curricula a maturing realization of the mandate given to the University at its founding by Michigan State University authorities and by its own Foundation and consultants. Among the 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, and the School of Performing Arts. 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,

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 his major, whether in the humanities, the social sciences, mathematics, the natural sciences, management, teacher education, or engineering.

All undergraduate programs in the College of Arts and Sciences lead to the degree of Bachelor of Arts. 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 ten 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 graduate programs, see pp. 192, 218, and 241 of this catalog and consult the Graduate Bulletin.

For further information on the programs of the School of Performing Arts, see pp. 243-47 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. 248-50 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-

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, Chancellor Durward B. Varner and a faculty of twenty-five received the charter class of 570 students. An enrollment of 6,600 is projected for September, 1970. 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 in no way affecting its legal and administrative relationship with Michigan State 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 education, 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 indentifiable 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 and through participation in the development of the Black Cultural Center in Pontiac the University is moving to diversify and to broaden its commitments to the community. In the inner city, the Detroit Teacher Internship Program, in which Oakland University is one of two participants, seeks to improve the academic achievement of elementary school children in this area by making available to the Detroit Public Schools a corps of well-trained liberal arts araduates as teacher interns.

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 educa-

tion 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 and ballet. In 1967 a resident company of professional actors, the John Fernald Company 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 opened under the direction of John Fernald, formerly Principal of the Royal Academy of Dramatic Art in London. His joint directorship both of the John Fernald Company and of the Academy ensures the effective educative influence of the one upon the other.

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, the Alumni Relations Department, the Placement Department, and the Alumni Education 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 Qakland, 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 mark its tenth anniversary, the University has 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 affiliated with Michigan State University. Both universities have the same President and Board of Trustees. The Board of Trustees is elected by the citizens of the State of Michigan and has ultimate authority for the development and operation of both universities. Oakland University has its own Chancellor and administrative officers. It has been since its founding free to formulate its own policies, programs, and educational philosophy and to choose its own faculty and staff.

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

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 Siama 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 computeroriented 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

All Oakland University library collections and services are centralized in Kresge Library, an open-stack facility. The Library presently contains approximately 165,000 volumes. 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 ten 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.

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.

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 Dean, School of Economics and Management; faculty offices (Economics and Management, Political Science).

South Foundation Hall (1959)

Gift of Mr. and Mrs. Alfred G. Wilson. Classrooms; faculty offices (Music, Division of Continuing Education).

Oakland Center (1959)

Self-liquidating funds. Student Activities Center; University Book Center; Scholar Shop; games room; coffee house; food services; meeting, banquet, and conference facilities; lounges; information desk; cleaners; barber shop.

Kresge Library (1961)

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

John Hannah Hall of Science (1961)

Funds appropriated by the State of Michigan. Classrooms; laboratories; Office of the Associate Dean, School of Performing Arts; faculty offices (Chemistry, Mathematics, Physics, Psychology).

Intramural Sports and Recreation Building (1963)

Self-liquidating funds. Athletic offices; gymnasium; swimming pool; rehearsal rooms of the Academy of Dramatic Art.

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 the 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; summer quarters of the Scholar Shop.

Matilda R. Wilson Hall (1966)

Funds appropriated by the State of Michigan. Classrooms; language laboratory; John Fernald Company; Meadow Brook Theatre; University Art Gallery; Admissions, Housing, and Placement Offices; Office of the Dean of Students; faculty offices (Academy of Dramatic Art, Art, English Language and Literature, History, 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 Dean, School of Education; Office of the Dean, Summer School; faculty offices (Allport College, Biological Sciences, Classical Languages and Literatures, Education, Engineering, Speech).

Graham Health Center (1968)

Self-liquidating funds. Health offices and services; Office of the Dean, College of Arts and Sciences; Office of the Dean of Freshmen; Advising and Orientation Offices; Office of the Director of Special Projects.

New Classroom-Office Building

(To be opened September, 1970.)

Funds appropriated by the State of Michigan and a federal grant.

Meadow Brook Hall Gift of Mr. and Mrs. Alfred G. Wilson.

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. Faculty offices (Sociology and Anthropology).

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 degree of Bachelor of Arts 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. 35-192 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. 194-205 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. 228-42 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. 192 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. 192 and 218 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 and reading instruction. For further information, consult p. 218 of this catalog and the Graduate Bulletin.

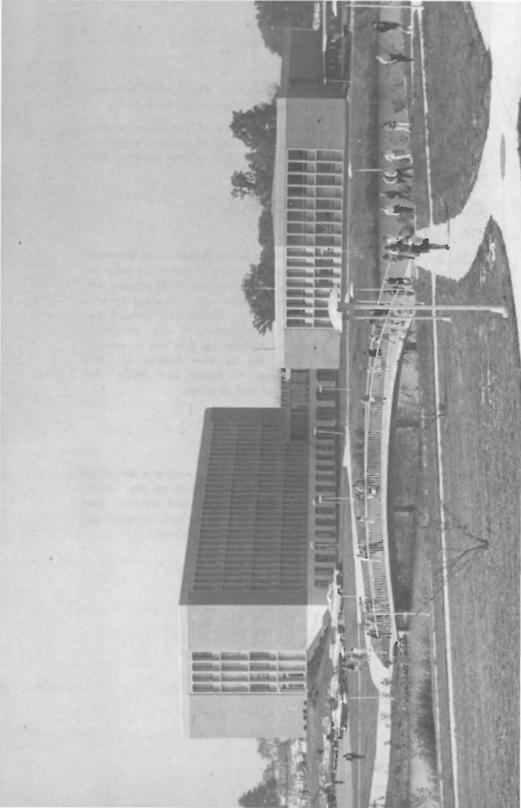
The School of Engineering offers a program of instruction leading to the degree of Master of Science in the field of systems engineering. For further information, consult p. 241 of this catalog and the Graduate Bulletin.

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. 246-47 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. During the Summer Session of 1970 the School will offer master classes in piano and violin. For further information, consult p. 245 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. 248-50 of this catalog and the catalog of the Division.



COLLEGE OF ARTS AND SCIENCES

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

OFFICERS OF ADMINISTRATION

OFFICE OF THE DEAN

GEORGE T. MATTHEWS REUBEN TORCH FRED W. SMITH Dean of the College Associate Dean of the College Associate Dean for Student Affairs Chief Academic Adviser

DEPARTMENTAL OFFICES

Department of Art JOHN C. GALLOWAY, Chairman

Department of Biological Sciences CLIFFORD V. HARDING, Chairman

Department of Chemistry PAUL TOMBOULIAN, Chairman

Department of Classical Languages and Literatures ROBERT R. DYER, Chairman

Department of Economics SIDDHESHWAR MITTRA, Chairman

Department of English Language and Literature JOHN P. CUTTS, Chairman

Department of History CHARLES W. AKERS, Chairman

Department of Mathematics G. PHILIP JOHNSON, Chairman

Department of Modern Languages and Literatures ROBERT E. SIMMONS, Chairman

Department of Music DAVID DI CHIERA, Chairman

Department of Philosophy RICHARD J. BURKE, Chairman

Department of Physics RALPH C. MOBLEY, Chairman

Department of Political Science EDWARD J. HEUBEL, Chairman

Department of Psychology DONALD HILDUM, Acting Chairman

Department of Sociology and Anthropology NAHUM Z. MEDALIA, Chairman

OFFICES OF INTERDEPARTMENTAL PROGRAMS

Allport College CARL R. VANN, Chairman

Charter College ALFRED LESSING, Chairman

New College MELVIN CHERNO, Chairman

Area Studies Program S. BERNARD THOMAS, Chairman

Language and Area Center for East Asia S. BERNARD THOMAS, Director

Concentration in Premedical Studies REUBEN TORCH, Chairman

Concentration in Linguistics WILLIAM SCHWAB, Chairman

Social Studies Program EDWARD J. HEUBEL, Chairman

Elementary Education Interdepartmental Major LASZLO J. HETENYI, Chairman (Dean, School of Education)

Freshman Exploratory Staff RICHARD S. LYONS, Chairman

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Thomas W. Casstevens, Chairman David W. Mascitelli Joel W. Russell

STANDING COMMITTEE OF THE FACULTY OF ARTS AND SCIENCES

Committee on Appointments and Promotions

George T. Matthews, Chairman Charles W. Akers John C. Galloway Robert C. Howes

G. Philip Johnson Robert E. Simmons Norman Susskind

The Committee meets periodically during the Fall and Winter Semesters in the Office of the Dean, Graham Health Center.

UNDERGRADUATE CURRICULUM IN ARTS AND SCIENCES GENERAL REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS

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

I. The Residence Requirement

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

A. Have completed 36 credits or more (as specified by his 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. 37-53.)

III. The Language Requirement*

In order to graduate with the degree Bachelor of Arts, the student must have demonstrated facility in a foreign language as required by his or her elected major. (For further detail concerning the language requirement, see pp. 53-54.)

IV. Requirement of an Elected Major

In order to graduate, the student must have fulfilled all requirements for an elected major and have at least a 2.0 average in the courses required for the major. (For further detail concerning the major, see pp. 54-57 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 has three components:

- I. General Education
- II. Language Study
- III. The Major

*The language requirement is under study and is subject to revision. For information consult the Advising Office, the Admissions Office, the Registrar, or departmental advisers.

I. General Education

(See also paragraph II of the General Degree Requirements.) There are four ways presently 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 onethird (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.

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 Mr. Richard Lyons 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) 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.

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 and music); of the social sciences (anthropology, economics, political science, psychology, sociology); and of the natural sciences and mathematics. 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 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. 40-44 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

(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 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).

(e) Area Studies

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

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,

ARTS AND SCIENCES

(4 or 8 credits)

upon the programs of the different departmental majors, but normally they should be taken in the freshman or sophomore year.

(c) Fine Arts

All students must complete at least 4 credits in either art or music in any one of the following courses: UC 047 (Art) or UC 049 (Music); majors in elementary education electing art should take either that section of UC 047 (Art) with laboratory assignment or ART 147; 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, art and music.

(4 credits)

(8 or 12 credits)

UC 087, UC 088, or UC 089 (Sciences), or EGR 101, 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.

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. 38). 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. 278) for professional help. Such students are automatically enrolled in ENG 009, Aids to Expository Writing, in which "S" (Satisfactory) or "U" (Unsatisfactory) 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 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 Western History and Philosophy

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

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 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 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 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 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. 38-40.

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.

FINE ARTS

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 047 with laboratory satisfies the University art requirement for general elementary education majors.

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 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 subcontinent. 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 credit for MTH 121-122, 125, 154, 314, 315, or 316 except by permission of the instructor. Enrollment limited to those with more than 58 credits.

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.

3. Senior Colloquia

Each student must take a Senior Colloquium in one of his 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.

C. ALLPORT COLLEGE PROGRAM

Carl R. Vann (Political Science), Chairman

Allport College is an inner college program founded in 1969 with the goal of providing, throughout the undergraduate years, both close 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. 35-36), 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.

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 the student did not study in either of his 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 artistic and cultural demonstrations and participatory activities. These "salon seminars" will be jointly organized by the students and faculty of the College with students and 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 will participate fully at all levels in the planning and execution of the curriculum.

Students in the College will be afforded opportunities for offcampus 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 to one hundred students.

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 499 Senior Colloquium

(4 credits)

D. CHARTER COLLEGE PROGRAM

Alfred Lessing (Philosophy), Chairman Sheldon L. Appleton (Political Science) Edward A. Bantel (Education and Psychology) Dolores M. Burdick (French Language and Literature) Phebe Chao (English Language and Literature) Robert I. Facko (Music) Robert C. Howes (History) Judith Koucky (History)

Charter College was formed in 1965 in an effort to retain some of the advantages of the small liberal arts college within the organizational framework of an expanding university. Students of Charter College choose a major from the baccalaureate programs offered by Oakland University and meet the requirements of their elected major in accordance with University regulations. They receive their degrees from the University. Within the College, its students may meet many of their general requirements and take some elective courses. They do so in the distinctive milieu of a small college.

To afford students and faculty in the College opportunities of aetting to know one another, residence and freshman advising are linked to the academic program as closely as possible. Most Charter College classes, moreover, are smaller in size than are classes in the University Course Program. Oakland University faculty members who have volunteered to teach in the College do so because they enjoy teaching in such a context and because the College invites them to build courses around whatever area in their fields of competence currently interests them most. Thus the main focus of Charter College courses is not a prescribed body of subject matter, but rather the process of inquiry itself. It is hoped that both the instructor's enthusiasm for his subject and some of his skills in approaching it will be transmitted to the students who choose to learn with him. The College also welcomes innovative teaching methods and student participation in the making of College policies.

Any full-time Oakland University freshman is welcome to apply for admission to the College, with the understanding that Charter College courses should be expected to claim at least as much of his or her time and energies as—and sometimes more than equivalent general education courses and programs in the College of Arts and Sciences. Only about one hundred freshmen will be accepted each year.

All Charter College students will enroll in a Charter College seminar and in the Charter College lecture series during their first two semesters in the College. Seminars will emphasize critical reading, analytical thinking, and effective writing. Normally, seminars will be limited to twenty students and the only grades given

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will be "S" (Satisfactory) and "U" (Unsatisfactory). The instructor will be requested to give each student a written evaluation at the end of the course. The instructor may also, if he wishes, designate a few students whose performance in the course has been outstanding. Students receiving "U" grades will not be given University credit for the course so graded. The student's instructor in his first Charter College seminar will also serve as his academic adviser during his freshman year. Students receiving failing ("U" or 0.0) grades in more than one of these four required courses will not be eligible to take College courses numbered 200 or above. Resident Charter College, to live in a particular dormitory or section(s) of a dormitory set aside for them.

All Charter College students must meet the University's Distribution Requirements and foreign language requirements appropriate to their major and curriculum. They, and not Charter College, must assume responsibility for arranging their programs so as to meet these requirements. Both Charter College courses and regular University Courses may be counted toward meeting these requirements. (The letter assigned to each Charter College course indicates which of the Distribution Requirements it may be used to satisfy.)

Charter students who have completed their first-year program have no more formal Charter College requirements to meet. However, they will be offered the opportunity to enroll in a number of additional courses. Included among these is a Senior Colloquium normally limited to twenty students and dealing with a subject outside the students' major field(s). As in the case of freshman seminars, only grades of "S" and "U" are given.

Upperclassmen may also elect to continue to live in the Charter College dormitory, as space permits after first-year students have been accommodated; to attend Charter College lectures and events programs without paying additional course fees; to participate in Charter College extracurricular programs and to serve on facultystudent committees that make recommendations concerning Charter College policies.

COURSE OFFERINGS

Charter College Seminars

Freshman seminars are offered on subjects chosen by the instructor and are normally limited to twenty students. Required of all Charter College students in each of their first two semesters

in the College. Graded satisfactory or unsatisfactory. (Transcript designations for the seminars are: CC 001A, CC 001B, CC 001C, CC 001D, CC 001E, and C 001F. The letter designations refer to subject matter groupings used in the University Course Program for the Freshman Exploratories to which these seminars are equivalent. See pp. 40-41.)

Charter College Lectures

Freshman lectures are offered on subjects chosen by the instructor and are normally offered to groups of 100 or more students. Required of all Charter College students in each of their first two semesters in the College. (Transcript designations for these lectures are: CC 100A, CC 100B, CC 100C, CC 100D, CC 100E, and CC 100F. The letter designations refer to subject matter groupings used in the University Course Program for the Distribution Requirements to which these lectures are equivalent. See pp. 41-43.)

Charter College Discussions

Upper-class discussions are offered on subjects chosen by the instructor and are open to Charter College students who have satisfactorily completed freshman requirements. Students must have the permission of the instructor to enroll. Courses in the 200 series will be graded on the University grading system of 0.0 to 4.3. Courses in the 300 series will be graded satisfactory or unsatisfactory. (Transcript designations for these discussions are: CC 200A, CC 200B, CC 200C, CC 200D, CC 200E, CC 200F and CC 300A, CC 300B, CC 300C, CC 300D, CC 300E, CC 300F. These discussions may be used to meet the Distribution Requirements according to the letter designation used to describe subject matter groupings in the University Course Program. See pp. 41-43.)

Charter College Senior Colloquia

Senior Colloquia are normally limited to twenty students with senior standing. Students must have the permission of the instructor to enroll and may not enroll more than once for credit except by special permission of the faculty chairman. Subject matter of the Colloquia should be outside the students' major field(s). Graded satisfactory or unsatisfactory. (Transcript designations for these Colloquia are: CC 499A, CC 499B, CC 499C, CC 499D, CC 499E, and CC 499F. The letter designations refer to subject matter groupings used in the University Course Program for the Senior Colloquia to which these Colloquia are equivalent. See pp. 43-44.)

Charter College Independent Study

Charter College Independent Study courses are open to students who have satisfactorily completed six Charter College courses. Specific programs for independent study must be submitted at least one month prior to enrollment, for approval by the Faculty-Student Committee on Independent Study, and must have the support of an Oakland University faculty member willing to serve as adviser for the course. Students may enroll in one or more 2- or 4-credit units of this course (CC 400), which must involve study outside of the students' major field(s).

Charter College Honors Program

Charter College honors courses are normally open to students who have satisfactorily completed six Charter College courses, have maintained at least a 3.0 cumulative grade point average at Oakland, and have obtained specific recommendations from two Charter College instructors. Under this program students are free to engage in whatever type of educational experience they believe will contribute most to their own personal development, on or off campus, in the United States or abroad. Students may enroll in these courses (CC 400H) for 12 or 16 credits and are subject to restrictions on their employment during the semester in which they are enrolled. In addition, they will be required to file monthly reports and a terminal written report on their experiences with their Charter College honors course adviser. Graded satisfactory or unsatisfactory.

E. NEW COLLEGE PROGRAM

Chairman: Melvin Cherno, 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 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. 37-44.) A student enrolled in New College must satisfy the language requirement appropriate to his major. (See pp. 53-54.)

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. This study of world culture is continued in a 4-credit course, Twentieth Century World Civilization (NC 103), taken in the sophomore or junior year.

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 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 behavior in offcampus communities. During this field term (NC 202), each student will work on a project for which he 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.

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 students 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. NC 101 is concerned with Ancient Civilizations, both those of the East and of the West. NC 102 is based on the history of Western Civilization from the Middle Ages to 1900. Required of all New College students. Sequence offered annually.

NC 103 Twentieth Century World Civilization (4 credits) A continuation of the freshman course, concentrating on twentieth century developments and having particular reference to the interactions between Western and non-Western cultures. Required of all New College students. Offered in the Fall Semester.

NC 111, 112 Arts Workshop (2 credits each term) A two-term course designed to allow the student to explore his 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, or dance. Required of all New College students. Sequence offered annually.

NC 201 Man in Society

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

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.

(12 credits)

(4 credits)

NC 211 Mime

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**

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, 302 Introduction to the Sciences (4 credits each term)

Introduction to the procedures and conclusions of contemporary American scientists. Each course will be a self-contained unit and will present a particular problem or field. Instructors for NC 301 will generally be drawn from the behavioral sciences; those for NC 302 from the natural sciences. Required of all New College students except elementary education majors and those students majoring in science departments or engineering. One or the other will be offered each semester.

NC 400 Senior Seminar

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

Independent Project NC 401 (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 **Oral Examination** 402

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**

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. The Language Requirement*

(See also paragraph III of the General Degree Requirements.) In addition to the general education component just described, the instructional program of each student includes the requirement that he or she must have demonstrated that level of facility in a foreign language (or authorized equivalent) required by the major which he or she elects.

A. In the liberal arts majors offered by the Departments of Art, Classical Languages and Literatures, English Language and Literature, History, Mathematics, Modern Languages and Literatures,

(2 credits)

(2 credits)

(4 credits)

(4 credits)

(4 credits)

^{*}The language requirement is under study and is subject to revision. For information consult the Advising Office, the Admissions Office, the Registrar, or departmental advisers.

Music, Philosophy, Political Science, Psychology, and Sociology and Anthropology the requirement is as follows:

1. The student is required to demonstrate proficiency in a foreign language through the fourth-semester level by placing beyond the second-year (fourth semester) language proficiency requirement at the college level in a proficiency examination administered upon admission; or

2. If need be, by successfully completing a fourth-semester course in a foreign language at the college level.

B. In the liberal arts majors offered by the Departments of Biological Sciences, Chemistry, Economics, and Physics, the requirement is as follows:

1. The student is required to demonstrate reading knowledge of a foreign language by placing beyond the first-year language proficiency requirement at the college level in a proficiency examination administered upon admission, or

2. If need be, by successfully completing a second-semester course in a foreign language at the college level.

C. In the preprofessional major of teacher education (both secondary and elementary) the requirement is the same as in "B" above.

D. Students in the majors listed in "B" and "C" above may, with departmental consent, satisfy the foreign language requirement by completing the two-semester sequence in linguistics, LIN 176 and LIN 177.

For further information concerning foreign languages, see pp. 120-37. Fort further information concerning linguistics, see pp. 182-87.

III. The Major

(See also paragraph IV of the General Degree Requirements.) Each student seeking candidacy for the degree of Bachelor of Arts 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
- 2. Studio Art
- 3. Biology
- 4. Chemistry
- 5. Classical Languages
- 6. Latin
- 7. Economics
- 8. English
- 9. History
- 10. Mathematics
- 11. Chinese Language and Civilization
- 12. French
- 13. German
- 14. Russian

- 15. Spanish
- Latin American Languages and Civilization
- 17. Music Theory and Composition
- 18. Music History and Literature
- 19. Philosophy
- 20. Physics
- 21. Political Science
- 22. Psychology
- 23. Sociology
- 24. Anthropology
- 25. Sociology and Anthropology

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. 212 of the section of this catalog devoted to the School of Education.)

- 1. Biological Sciences
- 2. Chemistry
- Classical Languages and Literatures Secondary teaching major in Latin only.
- 4. English Language and Literature
- 6. Mathematics
- Modern Languages and Literatures Secondary teaching majors in French, German, Russian, and Spanish only.
- 8. Music
- 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 p. 212 of the section of this catalog devoted to the School of Education.)
 - 1. Art
 - 2. Biological Sciences
 - 3. Chemistry
 - 4. English Language
- 6. Mathematics
- Modern Languages and Literatures
- 8. Physics

	and Literature	9.	Social Sciences
5.	History	10.	Science

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. 187-88.)

E. The College offers an interdisciplinary major in elementary education under the Committee on Elementary Education. (For further information, see pp. 212-16 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. Chinese Studies (See pp. 178-79.)
- 2. Linguistics (See pp. 182-87.)
- 3. Premedical Studies (See p. 187.)
- 4. Slavic Studies (See pp. 180-82.)
- 5. South Asian Studies (See pp. 179-80.)

G. The College of Arts and Sciences through several departments and through New College offers various programs for off-campus study. (See pp. 189-90.)

H. The College offers limited work in speech (p. 191) and in geography. (See p. 190.)

1. The College offers work in science for elementary education majors. (See p. 191.)

MAJOR STANDING AND GENERAL REQUIREMENTS FOR MAJORS

I. Admission to Major Standing

A. A student must have completed 56 credits before he 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 completes 56 credits.

C. A student may be admitted to major standing if he 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 maintains a 2.0 average in those courses which the department has approved as constituting his major program.

B. If a student falls below a 2.0 average in approved major courses, he 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 pre-requisite 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.

DEPARTMENT OF ART

Professor:	John C. Galloway (Art and Art History), Chairman	
Associate Professors:	John L. Beardman (Art) John B. Cameron (Art History)	
Assistant Professors:	Donald H. Dwyer (Art History) Ralph F. Glenn (Art History) Kiichi Usui (Art; Gallery Curator)	
Instructors:	P. Michael Brakke (Art) Charles E. Brownell, Jr. (Art History) Victoria Kay Thorson (Art History)	
Lecturer:	Morris Brose (Art)	

The professional 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 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 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 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 challenging exhibits of contemporary, primitive, and traditional arts in the University Art Gallery in Wilson Hall. The Gallery shows annually the best works by art majors and other students enrolled in departmental courses.

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

Each major in art history and studio art may be required to pass an oral examination, typically during the seventh semester, on a topic agreed upon between the student and the Department. This examination may be incorporated within ART 480, ART 490, or ART 491.

Majors in disciplines other than art 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.

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. Students intending to major in art are strongly advised to enroll in the College of Arts and Sciences program, rather than in any other college program, at the beginning of their freshman year at Oakland University.

The Department of Art also offers a secondary teaching minor. (The secondary teaching major is not offered in art.)

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. Primitive; African; Precolumbian; Oceanic
- B. Ancient Near East; Greek and Roman; Oriental
- 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)

Admission to major standing ordinarily requires completion of two Freshman Exploratories; two University Courses in social sciences; and UC 047 (which should be taken during the first semester). Art history majors are required to take two semesters of a second foreign language in addition to the usual four-semester University Course sequence. The preferred languages are French and German.

Requirements for the Liberal Arts Major in Studio Art

UC 047 (Introduction to Art) and eleven courses in art (making a total of 48 credits) are required, three of which must be in art history and eight in studio arts. UC 01C (Art) may not be substituted for UC 047; and the latter should be taken during the first semester. ART 226 must be completed before other studio courses may be taken, with the exception of ART 236 (Drawing). Of the three requisite art history courses, ART 381 (Twentieth Century Painting and Sculpture) must be taken first and must be completed before students may take ART 226, except that, with permission of the Department of Art, students may take ART 226 concurrently with ART 381. (Since enrollment in ART 226 is limited, preference will be given to students who have completed ART 381.) 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 greas:

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

ART 490 (Special Problems in Studio Art) is required of all studio art majors.

The requirements for major standing are identical to those for art history majors. Majors in studio art may be required to take, in addition to the usual four-semester sequence in one foreign language, two semesters of a second foreign language. (The preferred languages for all art majors are French and German.)

Requirements for the Secondary Teaching Minor in Art

Four art history and studio courses are required, beyond UC 047, UC 01C (Art), or ART 147, 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.

Liberal Arts Major in Art

(A Typical Program)

Semester 1 Freshman Exploratory Semester 2 Freshman Exploratory

UC 047 **Distribution Requirement** Foreign Language* Semester 3 ART 226 or Art History **Distribution Requirement Distribution Requirement** Foreign Language Semester 5 Art (300 or 400 level) **Distribution Requirement** Elective Foreign Language or Elective** Semester 7 Art Art **Distribution Requirement** Elective

Art History **Distribution Requirement** Foreign Language Semester 4 Art **Distribution Requirement** Elective Foreign Language Semester 6 Art Art Elective Foreign Language or Elective** Semester 8 Art ART 480, 490, or 491 Senior Colloquium Elective or Art

*French and German are the preferred languages for art majors. **Art history majors are required, and studio art majors may be required, to complete two semesters of a second foreign language beyond the four-semester University language requirement. (See note marked * above.)

ART 147 Introduction to History and Analysis of Art

(4 credits)

An introduction to the history and analysis of the visual arts. Designed chiefly for general elementary education majors, for whom it satisfies the University requirement in art. (See also UC 047, which, with laboratory assignment, also satisfies this requirement.) May not be taken for credit by students who have completed UC 047. Prerequisite: Permission of the Department of Art.

ART 226 Introduction to Studio Art

A study of the fundamentals of drawing, painting, and other two-dimensional processes. Designed mainly for art majors and minors; required of majors in studio art and recommended for majors in art history.

Prerequisites: Art majors who have completed UC 047 may, with permission of the Department of Art, take ART 226 concurrently with completing ART 381, the first of the three requisite art history courses. All other students must have completed one course in art history, exclusive of UC 047, UC 0IC (Art), and ART 147, before they may be admitted to ART 226. Since enrollment in ART 226 is limited, preference will be given to art majors who have completed ART 381.

ART 236 Drawing

Fundamentals of drawing. The human figure is studied as a primary means of visual learning and expression. Prerequisites: Same as for ART 226.

ART 326 Painting

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

(4 credits)

(4 credits)

(4 credits)

Prerequisites: UC 047 or ART 147; one course in art history beyond UC 047 and ART 147; and ART 226.

ART 327 Printmakina

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

Prerequisites: UC 047, or ART 147, one course in art history, and ART 226.

Sculpture ART 328

A studio course in three-dimensional and relief form using traditional and contemporary media.

Prerequisites: UC 047 or ART 147; one course in art history; and ART 226. Completion of ART 326 is recommended.

ART 329 Sculpture

The development of concepts and techniques in creative sculptural form. A studio course. Prerequisites: Major or minor standing in art and completion of ART 328.

ART 333 American Art

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

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 Primitive Art: Africa, Oceania, the Americas 351

(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

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.

Northern Renaissance Art ART 370

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 English Art 371

Architecture, painting, and sculpture in England from the Renaissance in the reign

(4 credits)

(4 credits)

(4 credits)

(4 credits)

(4 credits)

(4 credits)

(4 credits)

(4 credits)

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.

373 Art of the Seventeenth Century (4 credits) ART 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.

Nineteenth Century Art ART 380 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.

Twentieth Century Painting and Sculpture ART 381

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 secondary teaching minors in art and majors in studio art.

Prerequisite: UC 047 or ART 147.

Modern Architecture 383 ART

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.

The Art of the Film 390 ART

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.

Prerequisites: UC 047 or ART 147, and ART 381.

ART 395 Cinematography

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: UC 047, ART 226, ART 381, and ART 390, and/or permission of the Department of Art.

ART 400 Oriental Art

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

Prerequisites: UC 047 or ART 147, and one course in art history or permission of the Department of Art.

The Art of Japan ART 425

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

Prerequisites: UC 047 or ART 147, and one course in art history or permission of the Department of Art.

(4 credits)

(4 credits)

(4 credits)

(4 credits)

(4 credits)

(4 credits)

ART

Indians from prehistoric times until the Colonial Period.

Prerequisites: UC 047 or ART 147, and one course in art history or permission of the Department of Art.

The architecture, sculpture, and decorative arts of South, Middle, and North American

Medieval Painting ART 461

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

Prerequisites: UC 047 or ART 147, and one course in art history. (Completion of ART 361 is recommended.)

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 eight credits per semester. Prerequisites: Major standing in art and completion of two courses in studio art, or permission of the Department of Art.

ART 427 Advanced Printmaking (4 or 8 credits)

The development of ideas and processes of graphic arts (relief, planographic, intaglio, and serigraphic). May be taken, with permission of the Department of Art, for eight credits per semester.

Prerequisites: Major standing in art and completion of two courses in studio art, or permission of the Department of Art.

Advanced Sculpture (4 or 8 credits) ART 428

The development of ideas and exploration of problems in sculptural media. With permission of the Department of Art, may be taken for eight credits per semester. Prerequisites: Major standing in art and completion of ART 328 or 329.

Chinese Art ART 435

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 or ART 147, and one course in art history or permission of the Department of Art.

The Art of the Ancient Near East ART 445 (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 Negro Africa

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. Prerequisites: UC 047 or ART 147, and one course in art history or permission of the Department of Art.

Greek and Roman Art ART 455

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.

Precolumbian and Tribal Art of the Americas ART 457

(4 credits)

(4 credits)

(4 credits)

(4 credits)

ART 465 Byzantine Art

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.

Prerequisites: UC 047 or ART 147; and ART 361 or ART 455, or permission of the Department of Art.

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. Prerequisites: 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 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 Department of Art, may be taken for eight 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 eight credits.

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

ART 491 Special Problems in Art History (4 or 8 credits) A program of individually 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 eight credits.

Prerequisites: Major standing in art and completion of three courses in art history, and/or permission of the Department of Art.

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 Michael V. Riley Nalin J. Unakar			
Assistant Professors:	Madison B. Cole, Jr. John D. Cowlishaw John Reddan Arun K. Roy			
Assistant Instructor:	Thomas Rodeheffer			
Lecturers:	Philip T. Clampitt			

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.

James R. Wells

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. 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 must be taken simultaneously.) In addition, 15 credits in chemistry, 10 credits in physics, and 8 credits in mathematics (MTH 154-155 or MTH 121-122) are required. For details on the language requirement for this major, see pp. 53-54 of this catalog.

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

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. 191) 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 language requirement for this major, see pp. 53-54 of this catalog.

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 BIO 111, 112 Semester 2 Freshman Exploratory BIO 113, 114

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 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. These students are also urged to take MTH 226, Applied Statistics.

³German, French, or Russian. (Other languages may be substituted with permission of the Department of Biological Sciences.)

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. These students are also urged to take MTH 226, Applied Statistics.

 BIO Lecture & Lab
 BIO Lecture & Lab

 Foreign Language²
 Foreign Language²

 Elective
 Semester 7

 Senior Colloquium
 ED 428

 BIO Lecture & Lab
 ED 455

 Elective
 Elective

 2 German, French, or Russian. (Other languages may be substituted with permission of the Department of Biological Sciences.)

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

BIO 104 Biology of the Human (4 credits) The biology of man. Cells, tissues, organs, conduction, contraction, circulation of blood and lymph, breathing, digestion, and excretion will be discussed.

BIO 105 Biology of the Human (4 credits) Integration and correlation: the central nervous system, the endocrine system, and

Integration and correlation: the central nervous system, the endocrine system, and reproduction will be discussed.

Prerequisite: BIO 104 or permission of the instructor.

BIO 106 Local Flora

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 indentification; plant communities in Michigan.

BIO 108 Bio-engineering

Selected topics to introduce students of engineering to biological systems. Communication, movement, circulation, excretion, and problems of abnormal environment will be discussed.

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

BIO 111 Biology

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, and higher taxonomic groups and biota. Basic principles will be emphasized.

BIO 112 Biology Laboratory To accompany BIO 111.

BIO 113 Biology Continuation of BIO 111.

(4 credits)

(4 credits)

(4 credits)

(1 credit)

Biology Laboratory BIO 114

To accompany BIO 113.

BIO 221 Physiology

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.

Prerequisite: BIO 113.

Anatomy and Physiology Laboratory BIO 222 (1 credit) A detailed study of vertebrate anatomy and physiology. To accompany BIO 221.

BIO 223 Histology

The microscopic anatomy and histochemistry of vertebrate tissues and organs, in relation to tissue function. Prerequisite: BIO 113.

Histology Laboratory (1 credit) BIO 224

To accompany BIO 223.

BIO 225 Elementary Biophysics and Cellular (4 credits) Biochemistry

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

Prerequisite: BIO 113.

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

To accompany BIO 225.

231 Microbiology BIO

A discussion of the classification, morphology, and physiology of micro-organisms. Prerequisite: BIO 113.

232 Microbiology Laboratory BIO

To accompany BIO 231.

BIO 237 Botany

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.

Botany Laboratory BIO 238

To accompany BIO 237.

BIO 241 Plant Morphology

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.

(4 credits)

(4 credits)

(1 credit)

(4 credits)

(1 credit)

(4 credits)

(1 credit)

Plant Morphology Laboratory 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. Plant Physiology Laboratory (1 credit) BIO 244 To accompany BIO 243. Invertebrate Zoology (4 credits) BIO 247 Comparative study of major invertebrate groups, with particular reference to their evolution. Prerequisite: BIO 113. Invertebrate Zoology Laboratory (1 credit) BIO 248 To accompany BIO 247. 249 Endocrinology BIO An integrated study of the different endocrine systems with emphasis on their interrelationship, control, and mechanism of action. Prerequisite: BIO 225 or 221. (1 credit) Endocrinology Laboratory BIO 250 To accompany BIO 249. Individual research projects. Prerequisite: Permission of the instructor. (4 credits) BIO 301 Ecology 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 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.

Prerequisites: BIO 113, 114. BIO 223 desirable. Developmental Biology Laboratory BIO 324 (1 credit) To accompany BIO 323. A study of the anatomy of developing vertebrate animals. Individual and group research projects in experimental morphogenesis.

BIO 341 Genetics

BIO

242

The physical and chemical basis of inheritance. Selected topics in human genetics, microbial genetics, biochemical genetics, and cytogenetics. Prerequisite: BIO 113.

Genetics Laboratory BIO 342

To accompany BIO 341.

BIO 403 Protozoology

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

(1 credit)

(4 credits)

(4 credits)

(1 credit)

BIO 404 Protozoology Laboratory

To accompany BIO 403.

Special Topics BIO 405

Prerequisite: Permission of the instructor.

BIO 407 **Cellular Biochemistry**

An integrated discussion of the principles of biochemistry in relation to cell structure and function. The following topics will be considered: composition and properties of proteins, carbohydrates, and lipids; isolation of subcellular organelles and molecular constituents; enzyme chemistry; intermediary metabolism; bio-energetics; biochemical characteristics and physiological roles of subcellular organelles; photosynthesis; control of cellular metabolism; permeability and active transport; muscle contraction and cell division.

Prerequisites: BIO 225, CHM 234, PHY 152. CHM 344 desirable.

Cellular Biochemistry Laboratory **BIO 408** (1 credit) To accompany BIO 407.

An introduction to modern research procedures in biochemistry and cellular physiology. The laboratory work will include: spectrophotometric analysis of biological compounds; chromatographic and electrophoretic techniques; enzyme kinetics; isolation and characterization of subcellular organelles; cellular permeability; individual research projects.

BIO	409	Cellular	Biochemistry	(4 credits)
Conti	nuation o	f BIO 407.		

410 Cellular Biochemistry Laboratory BIO (1 credit) To accompany BIO 409.

Differentiation BIO 415 (4 credits)

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

Prerequisite: BIO 323.

BIO 425 **Biophysics**

BIO 426 **Biophysics Laboratory**

To accompany BIO 425.

BIO 429 Cytochemistry

A survey of techniques currently used in microscopy to analyze the distribution and quantity of specific chemicals within cells and their organelles. Techniques included are: specific staining reactions, enzyme digestion, metabolic inhibition, and autoradiography.

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

Cytochemistry Laboratory (1 credit) BIO 430

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

Biochemical and Biophysical Genetics BIO 435 (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.

(4 credits)

(1 credit)

(4 credits)

(4 credits)

(1 credit)

(2, 3, or 4 credits)

Gen	hemical and Biophysical etics Laboratory	(1 credit)
To accompany BIO 435.		
BIO 437 Virol Prerequisite: BIO 231.	logy	(4 credits)
BIO 438 Virol To accompany BIO 437.	logy Laboratory	(1 credit)
	obial Genetics etics of microbial systems, including mo nd BIO 341.	(4 credits) Ids, bacteria, Protozoa,
BIO 442 Micro To accompany BIO 441.	obial Genetics Laboratory	(1 credit)
	a structure fine structure of cells and cell pro other procedures.	(4 credits) ducts as revealed by
BIO 446 Ultro To accompany BIO 445.	astructure Laboratory	(1 credit)
BIO 455 Semi Discussion of recent pub	inar Ilications in the biological sciences.	(4 credits)
	Biology Ind permission of the instructor.	(4 credits)
BIO 464 Cell To accompany BIO 463.	Biology Laboratory	(1 credit)
Review and analysis of nerve and synapse. Elec molecular levels.	anced Physiology—Nerve the modern concepts of membrane ex ctrophysiological phenomena discussed nd permission of the instructor.	
To accompany BIO 471.	anced Physiology Laboratory An introduction to research technique f oscilloscope, amplifiers, and stimulator croelectrode technique.	

BIO 473 Advanced Physiology—Muscle (4 credits) Review and analysis of the modern concepts of muscular activity and molecular mechanism of contraction. The discussions will include the ultrastructural correlation of muscle function and mechanics, biochemical approaches to elucidate energetics of muscle contraction, theories of molecular basis of muscular contraction. Prerequisites: BIO 221 and permission of the instructor.

BIO 474 Advanced Physiology Laboratory (1 credit) To accompany BIO 473. An introduction to research techniques in muscle physiology. Work will include: neuromuscular transmission study; isometric force measurements;

isotonic lever design problems; length-tension, force-velocity relations; stress-strain relations of series elastic component; contractile properties of isolated actomyosin system and glycerinated muscle fiber.

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

Prerequisite: Permission of the instructor.

BIO 497 Apprentice College Teaching (2 credits)

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 Tomboulian, Chairman Kenneth M. Harmon		
Associate Professors:	Gottfried Brieger James E. Davis Julien Gendell Steven R. Miller Frederick W. Obear Robert L. Stern Anthony L. Van Geet		
Assistant Professors:	Jeffrey A. Greenhouse Joel W. Russell		

The Oakland University chemistry programs offer students the laboratories, equipment, and research opportunities found only in large universities while retaining the strong emphasis on undergraduate education and informality of student-faculty relations characteristic of the small liberal arts college. The University has the resources to offer 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 completely accredited by the American Chemical Society.

The Department of Chemistry offers programs of study leading to the degrees of Bachelor of Arts and Master of Science. For details on the graduate program, see the Graduate Bulletin. The degree of Bachelor of Arts may be taken in the Department with the following majors and minors: the major in chemistry (American Chemical Society approved program), the liberal arts major in chemistry, the secondary teaching major in chemistry, the secondary teaching minor in chemistry.

It should be noted that the University Course Program has been modified for the Department of Chemistry 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. 255.) Entering students interested in this option should consult with a departmental adviser well in advance of their first registration.

Requirements for the Major in Chemistry

(American Chemical Society Approved Program)

Graduates who complete this curriculum have met the minimum standards for professional education of the American Chemical Society and will be so certified by the Department to the Society. This program is highly structured and provides excellent 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) can usually also obtain the degree of Master of Science in chemistry in four calendar years.

Forty-eight credits in chemistry are required. Of these, 29 credits must be taken in the following lecture courses: CHM 114 or 104, CHM 115, 234-235, 312, 324, 344, 345. (CHM 351 and 444 are highly recommended electives.) At least 13 credits must be in laboratory courses in chemistry, including CHM 238, 317, 328, and 348. Twenty-six credits in mathematics and physics are required, including PHY 158, PHY 371, and MTH 254. Successful completion of GRM 101-102 or RUS 114-115 or equivalent proficiency is required. Admission to major standing requires a total of 32 credits in chemistry, physics, and mathematics.

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 the humanities; or in interdisciplinary sciences such as 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 either CHM 114-115, 234, and 344 or CHM 104, 203, 204, 205; and two of the following: CHM 312, 324, 345, and 351. At least 7 credits must be in laboratory courses in chemistry. MTH 154-155, PHY 151-152, and PHY 158 are required. (PHY 371 is a highly recommended elective.) Successful completion of one year of a foreign language or LIN 176, 177 is required.

Certain interchanges between the two sequences (CHM 104, 203, 204, 205 and CHM 114-115, 234, 344) may be made with the permission of the Department. Interested students should consult their departmental advisers. Admission to major standing requires a total of 28 credits in chemistry, physics, and mathematics.

Requirements for the Secondary Teaching Major in Chemistry

Thirty-two credits in chemistry are required, including CHM 104, 203, 204, 205 (or CHM 114-115, 234, and 344), CHM 312, and CHM 351. Nine credits in laboratory courses in chemistry are required. Eight credits in mathematics are required, including MTH 155. Ten credits in physics are required. Minors in mathematics or physics are suggested. Other minors may be arranged. (See p. 212 of this catalog.) The following education courses are required; ED 244, 245, 428, and 455. Admission to major standing requires a total of 28 credits in chemistry, physics, and mathematics.

Successful completion of one year of a foreign language or LIN 176, 177 is required.

Requirements for the Secondary Teaching Minor in Chemistry

Twenty credits in chemistry courses are required.

Major in Chemistry (ASC Approved Program)

(A Typical Program)

Semester 1 CHM 114, 117 MTH 154 **Distribution Requirement** Freshman Exploratory Semester 3 CHM 234 MTH 254 PHY 152, 158 Distribution Requirement Semester 5 CHM 344, 238 (CHM 351, 357)1 GRM 101 or RUS 114 Semester 7 CHM 312, 317

Semester 2 CHM 115, 118 MTH 155 PHY 151 Freshman Exploratory Semester 4 CHM 235, 237 PHY 371 (MTH 255)1 **Distribution Requirement** Semester 6 CHM 345, 348 CHM 324, 328 GRM 102 or RUS 115 Semester 8 **CHM** Elective

(CHM 444, 448)¹ 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 MTH 134 or 154 **Distribution Requirement** Freshman Exploratory Semester 3 CHM 204, 207 MTH 155 or **Distribution Requirement** PHY 152 BIO 111, 112 Semester 5 CHM 351, 357 **BIO** Elective Foreign Language or LIN 176 Semester 7 (CHM Elective)1 Elective Elective

Semester 2 CHM 203, 206 MTH 154 or 155 PHY 151 Freshman Exploratory Semester 4 CHM 205, 208 BIO 113, 114 PHY 158 Distribution Requirement

Semester 6 CHM 312 or 324 BIO Elective Foreign Language or LIN 177

Semester 8 (CHM Elective)¹ Senior Colloquium Elective

¹CHM 261, 324, 328, and 451 are recommended electives.

Secondary Teaching Major in Chemistry

with a Group Minor in Mathematics and Physics

(A Typical Program)

Semester 1 CHM 104, 107 MTH 134 Distribution Requirement Freshman Exploratory Semester 3 CHM 204, 207 MTH 155 ED 244 Distribution Requirement Semester 2 CHM 203, 206 MTH 154 UC 054 Freshman Exploratory Semester 4 CHM 205, 208 PHY 151 ED 245 Elective

Semester 6 CHM 312 PHY 371 or MTH 226 or 254 Foreign Language or LIN 177 Elective Semester 8 ED 428 ED 425

¹CHM 317 and 324, 328 are recommended electives.

CHM 104 Introductory Chemistry (4 credits) Introduction to atomic and molecular structure, chemical bonding, stoichiometry, solu-

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

Semester 5

Elective

Elective Elective

Semester 7

CHM 351, 357

PHY 152, 158

Foreign Language

or LIN 176

(CHM Elective)1

Senior Colloquium

tion and ionic equilibria.

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

Prerequisite: Three 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

Continuation of CHM 114. Offered in the Winter Semester only. Prerequisite: CHM 114. Prerequisite or corequisite: MTH 154.

CHM 117 Chemistry Laboratory

Introductory experiments in various areas of chemistry. Prerequisite or corequisite: CHM 114.

CHM 118 Chemistry Laboratory

Experiments illustrating principles and techniques of analytical chemistry. Prerequisite: CHM 117.

CHM 191 Computer Techniques (2

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.

CHM203IntroductoryOrganicChemistry(4 credits)Rates of chemical reactions; basic organic chemistry; synthetic polymers; biopolymers.Prerequisite:CHM104 or114.

(4 credits)

desirable. (3 credits)

(1 credit)

(2 credits)

CHM Intermediate Organic Chemistry (4 credits) 204 (Structure and Mechanisms)

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

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. Prerequisites: CHM 203 or 115; MTH 154.

Prerequisite or corequisite: MTH 155.

Introductory Organic Chemistry (1 credit) 206 CHM Laboratory

Continuation of CHM 107 with emphasis on organic systems. Prerequisite or corequisite: CHM 203.

CHM 207 Intermediate Organic Chemistry (1 credit) Laboratory

Synthetic and degradative techniques of organic chemistry: special emphasis on drug synthesis and natural product structure proof.

Prerequisites or corequisites: CHM 204 and CHM 206 or 118.

Intermediate Chemistry Laboratory CHM 208 (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. Prerequisites or corequisites: CHM 205 and CHM 206 or 118.

CHM 234-235 Organic Chemistry (4 credits each)

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

Prerequisite: CHM 115 or 104.

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

Qualitative analysis techniques of modern synthetic and physical organic chemistry. Prerequisites: CHM 117-118 or 107.

Prerequisites or corequisites: CHM 234-235.

CHM 261 Radiochemistry

Nuclear structure and stability, nuclear reactions, decay schemes, dosimetry, radioisotope production, tracer applications, radioisotope methodology; includes laboratory. Prerequisite: CHM 206 or 118.

Inorganic Chemistry (4 credits) CHM 312

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.

Inorganic Chemistry Laboratory CHM 317 (1 credit)

Advanced preparatory techniques; methods of purification and analysis. Prerequisite or corequisite: CHM 312.

Physical chemistry of macroscopic systems: thermodynamics, kinetics, transport prop-

(4 credits)

(2 credits)

(2 credits)

(4 credits)

Physical chemistry of microscopic systems: elementary quantum chemistry, bonding

(2 credits)

351 Biochemistry CHM

Physical Chemistry Laboratory

Analytical Chemistry

Physical Chemistry

Physical Chemistry

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

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

Advanced guantitative techniques and measurements; theory and application of modern

Analytical Chemistry Laboratory

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 205.

Biochemistry Laboratory CHM 357

Prerequisite or corequisite: CHM 351.

CHM

CHM

CHM

erties.

CHM

CHM

324

Corequisite: CHM 328.

328

Corequisite: CHM 324.

344

345

348

Laboratory coordinated with CHM 324.

theories, introductory statistical mechanics. Prerequisites: CHM 205 or 344, MTH 254, PHY 371.

Prerequisites: CHM 344, PHY 158.

analytical methods.

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.

Seminar CHM 400 Weekly discussions of all fields of current interest in chemistry. (This course may be taken twice for credit.)

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

ARTS AND SCIENCES

(4 credits)

(1 credit)

(1 credit)

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.

CHM 487 Advanced Preparations (2 or 4 credits) Specialized laboratory work in selected areas emphasizing advanced techniques. Prerequisite: Permission of the Department.

CHM 490 Research (1, 2, 4, 6, or 8 credits) Laboratory and library practice in undergraduate research. Prerequisite: Permission of the Department.

Chemistry courses on the 500 level are graduate 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.

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 a tutorial with the topics chosen according to the interests and backgrounds of the students.

Prerequisite: CHM 452 or equivalent.

DEPARTMENT OF CLASSICAL LANGUAGES AND LITERATURES

Professor:		Robert R. Dyer, Chairman
Assistant Professor:		Cherryl A. Wagner

Interest in ancient Greece or Rome will flourish as long as we care enough about our present to be concerned about our past. Most of us, unfortunately, are unaware of how radically our classical past has influenced the books we read, the languages we speak, and the thoughts we think. The study of classical languages and literatures on the university level is designed to preserve and increase our awareness of the classical world through systematic study of its ancient civilization, of its aims and achievements, of its glories and limitations, of its triumphs and tragedies.

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.

Many classics majors are preparing to teach Latin in the high schools; some will go on to graduate school for advanced degrees and a career in college teaching. Others, enrolled as Latin or Greek minors, will combine classics with English, history, or other foreign languages in preparation for a variety of careers.

Requirements for the Liberal Arts Major in Classical Languages

Thirty-six credits are required, in addition to the 16 credits in Latin (LTN 114-115, LTN 214-215) used to satisfy the University Course language requirements. A typical classics major would include: 12 credits in Latin (LTN 320, LTN 414-415); 16 credits in Greek (GRK 114-115, GRK 214-215); 8 credits in classics or ancient history. Those planning graduate work in classics should complete in addition to the above 36 credits: 4 credits in Latin literature; 8 credits in Greek; 8 credits in classics or ancient history. Admission to major standing requires two Freshman Exploratories and 16 credits in Latin.

Requirements for the Liberal Arts Major in Latin

Thirty-six credits in Latin and classics or ancient history are required, in addition to the 16 credits in Latin (LTN 114-115, LTN 214-215) fulfilling the University Course language requirement. A typical program would include: 20 credits in LTN 320; 8 credits in LTN 414-415; 8 credits in classics or ancient history. Admission to major standing requires two Freshman Exploratories and 16 credits in Latin.

Requirements for the Secondary Teaching Major in Latin

Thirty-two credits in Latin and classics or ancient history are required, in addition to the 16 credits in Latin (LTN 114-115, LTN 214-215) fulfilling the University Course language requirement. A typical program includes: 16 credits in LTN 320; 8 credits in LTN 414-415; 8 credits in classics or ancient history. The following education courses are also required: ED 244, ED 245, ED 428, ED 455. Admission to major standing requires two Freshman Exploratories, 16 credits in Latin, acceptance by the Department of Classical Languages and Literatures, and concurrent acceptance into the Teacher Education Program.

Classical Greek Philosophy CLS 204 Identical with PHL 204.

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

Classical Mythology (4 credits) CLS 312 The principal Greek and Roman myths and their uses in classical and post-classical art and literature. 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. The Ancient Historians CLS 324 (4 credits) A survey of the aims, methods, achievements, and limitations of ancient historiography through a reading, in translation, of the most prominent ancient historians. Identical with HST 324. CLS 337 Hellenic Greece (4 credits) Greek history from the Bronze Age to the Peloponnesian War. Identical with HST 337. CLS 338 Hellenistic Greece (4 credits) Greek history from Alexander the Great to the Roman period. Identical with HST 338. CLS 339 **Republican Rome** (4 credits)

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

CLS 340 Imperial Rome

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

CLS 355 Greek and Roman Art 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.

Ancient and Medieval Philosophers CLS 382 (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.

Elementary Greek GRK 114-115 (4 credits) Classical Greek. Elements of grammar and some connected reading will be studied. May be conducted as a tutorial.

Intermediate Greek (4 credits each) GRK 214-215 Review of grammar, exercises in prose composition, and the reading of simple literary works, ordinarily Plato's Apology, selections from Herodotus, and selected books of Homer's Iliad. May be conducted as a tutorial. Prerequisite: GRK 115.

GRK 320 Selections from Greek Literature (4 credits) Greek drama and history. Selected dramas of Aeschylus, Sophocles, Euripides, and Aristophanes, and selections from Herodotus and Thucydides. May be conducted as a tutorial. May be taken for one or more semesters. Prerequisite: GRK 215.

Survey of Classical Greek Literature (4 credits each) GRK 414-415 Readings in classical Greek literature from Homer to the Hellenistic Age. Selections will be chosen to illustrate the historical development of Greek literature. May be conducted as a tutorial.

Prerequisite: GRK 320 (4 or more credits).

Elementary Latin (4 credits each) LTN 114-115 The first semester is devoted to elements of grammar; the second semester to a review of grammar, exercises in composition, and the reading of simple selections from Latin prose and poetry.

Intermediate Latin LTN 214-215 (4 credits each) The first semester is usually devoted to the reading of selections from Cicero, Catullus, and Horace; the second semester to extensive selections from Virgil's Aeneid. Prerequisite: LTN 215.

LTN 320 Selections from Latin Literature (4 credits) A detailed study of selected works by major Latin writers. May be conducted as a tutorial. May be taken for one or more semesters. Prerequisite: LTN 215.

Survey of Classical Latin Literature (4 credits each) LTN 414-415 Readings will be selected from representative writers of the Republic and Empire and will be chosen to illustrate the historical development of Latin literature. Prerequisite: LTN 320 (4 or more credits).

(4 credits)

DEPARTMENT OF ECONOMICS

Professors:	Sid Mittra, Chairman Norton C. Seeber Theodore O. Yntema (Visiting)				
Associate Professors:	Karl D. Gregory (on leave 1970-71) Robbin R. Hough				
Assistant Professors:	Eleutherios N. Botsas David P. Doane John Hurd II Lon Polk John E. Tower Kenneth C. Young				
Instructor:	Anthony P. Cephalas				

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 that in economics, 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 programs 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.

The curriculum for the liberal arts major in economics emphasizes concepts and tools of analysis and their application to problems of economic and social policy. 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.

Requirements for the Liberal Arts Major in Economics

The major in economics requires a total of 28 credits in economics, distributed as follows: UC 056, ECN 216, ECN 217, ECN 480, and three other courses in the Department, one of which must have as prerequisite ECN 216 and another of which requires ECN 217 as

prerequisite. In addition, all majors must take one course in economic statistics with accompanying laboratory (either ECN 310, 311 or MGT 210, 211); they must complete two semesters (8 credits) of work in another social science; and they must take MTH 121-122 (preferably during their first year). (MTH 154 may normally be substituted for MTH 122, or the MTH 154-155 sequence may be substituted for the MTH 121-122 sequence.) Admission to major standing requires two Freshman Exploratories, plus UC 056, ECN 216, ECN 217, and MTH 121-122. Economics majors may fulfill the University foreign language requirement by (a) successfully completing a second-semester course in language at the college level, or (b) placing beyond first-year language proficiency at the college level in an examination administered upon admission, or (c) completing LIN 176 (ENG 176) and LIN 177 (ENG 177).

Liberal Arts Major in Economics

(A Typical Program)

Semester 1 UC 056 Freshman Exploratory MTH 121 Foreign Language or LIN 176 Semester 3 ECN 216 **Distribution Requirement Distribution Requirement** Elective Semester 5 ECN 310 (plus ECN 311) **Economics Elective Distribution Requirement** Elective Semester 7 **Economics** Elective Elective Elective Elective

Semester 2 **Distribution Requirement** Freshman Exploratory MTH 122 Foreign Language or LIN 177 Semester 4 ECN 217 **Distribution Requirement Distribution Requirement** Elective Semester 6 **Economics** Elective **Distribution Requirement** Elective Elective Semester 8 ECN 480 Elective Senior Colloquium

Microeconomic Analysis ECN 216

Prerequisite or corequisite: MTH 122.

Analysis of pricing, resource allocation, and income distribution at the level of the individual firm, industry, and household consuming unit. Offered in the Fall and Winter Semesters. Prerequisite: UC 056.

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 ECN
 217
 Macroeconomic Analysis
 (4 credits)

 Study of factors determining the level of national income and employment, price levels, and inflation. Offered in the Fall and Winter Semesters.
 Prerequisite:
 UC 056.

Prerequisite or corequisite: MTH 121.

ECN 223 The Indian Economy (4 credits) The economic problems of developing nations in the context of the Indian economy. Prerequisite: Permission of the instructor.

ECN 225 American Economic History (4 credits) Study of the principal events in the growth and development of the American economy from colonial times to the present. Includes discussion of the evolution of current historical thought under the impact of economic analysis.

Prerequisite: Completion of one (1) Freshman Exploratory or permission of the instructor.

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

Analysis of the forces underlying economic growth in advanced nations. Study of business cycle 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.

ECN 308 Urban-Regional Economics (4 credits) Application of the tools of economic analysis to the problems of urban regions. These problems include (1) differences in the level, distribution, growth, and stability of income within and between urban regions and (2) employment, housing, transportation, the urban public economy, and the location of industry. Prerequisite: UC 056 or permission of the instructor.

ECN 310 Statistical Techniques for the Social (4 credits) Sciences

Use of statistical techniques to solve problems faced by firms and industries. Includes laboratory exercises using computers. Offered in the Fall Semester. Prerequisite: MTH 125 or permission of the instructor. Corequisite: ECN 311.

ECN 311 Laboratory for ECN 310 (1 credit) Use of computers in problem-solving and statistics.

ECN 318 Social Organization and Economic (4 credits) Change

An application of the tools of economic analysis to those conflicts between actors and environments which have helped shape the modern economy. This course it not open to economics majors.

ECN 321Monetary 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.

ECN 322 Capital Markets (4 credits) Analysis of the operation of major financial institutions and markets. Sources and uses of funds for corporations and other organizations. Identical with MGT 322. Prerequisite: ECN 216.

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.

Business in the American Economy ECN 324 (4 credits) Public attitudes toward, and government regulation of, business; social and legal responsibilities of business. Identical with MGT 324. Prerequisite: ECN 216.

Industrial Organization ECN 325 (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.

Economic Development ECN 326 (4 credits) Application of the tools of economic analysis to the problems of economic development and growth.

Prerequisite: UC 056 or permission of the instructor.

ECN 333 Labor-Management Relations (4 credits) Analysis of management-employee relations in modern industry; public policy in labor-management areas. Identical with MGT 333. Prerequisites: UC 056 and ECN 216.

ECN 335 The Economics of Collective Decision-(4 credits) makina

An investigation of the causes and implications of the limitations of voluntary decentralized exchange systems. Alternative techniques of economic-political organization will be evaluated. Such problem areas as pollution, conservation, and transportation will be examined, using techniques of applied welfare economics, including cost-benefit analysis. Identical with MGT 335.

Prerequisite: UC 056 or permission of the instructor.

Simulation in Economics ECN 342 (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**

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 permission of the instructor.

ECN 405 Econometrics

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

Prerequisites: ECN 216, ECN 217, either MGT 210 or ECN 310, and permission of the Department.

Advanced Economic Theory ECN 417

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

Prerequisites: ECN 216 and ECN 217, or permission of the instructor.

(4 credits)

(4 credits)

ECN	418	Selected Topics in Econor	mic Policy	(4	credits)
Prereq	uisite: Ma	or standing.			
ECN	480	Seminar		(4	credits)
		l topics, and readings. Offered in t	the Winter Semester.		
Prerequ	uisite: Per	mission of the Department.			
ECN	490	Independent Research		(4	credits)

Prerequisite: Permission of the instructor.

DEPARTMENT OF ENGLISH LANGUAGE AND LITERATURE

Professors:

John P. Cutts, Chairman Maurice F. Brown Thomas Fitzsimmons William Schwab Gertrude M. White, Associate Chairman

Associate Professors:

John G. Blair Joseph W. DeMent Peter G. Evarts, Associate Chairman James F. Hoyle Richard S. Lyons Donald E. Morse Marilyn L. Williamson

Assistant Professors:

Instructors:

Robert L. Donald Nigel Hampton Brian F. Murphy Helen J. Schwartz

Charles M. Broh Jane Donahue Robert T. Eberwein Daniel H. Fullmer David W. Mascitelli

Special Instructors:

Margaret L. Kurzman Joan G. Rosen

Phebe Chao

Assistant Instructor: Douglas F. Marsh

Lecturer: Rosalie Murphy

The English major is in profile the same for liberal arts and teacher education. Requirements have been cast so as to provide at once a solid base in the discipline of letters and an opportunity for each student to shape certain specifics within the course of study as they seem to him best fitted to his abilities and ambitions. Students planning to attend graduate school should select courses on a basis here and there different from that of those who look upon the Bachelor of Arts as a terminal degree; students completing the secondary teaching major will want a course of study in places different from that of the straight

liberal arts student. Consequently, it is extremely important that all students majoring in English take the initiative and actively seek guidance in the exercise of choice open to them.

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.

Requirements for the Liberal Arts Major and

Secondary Teaching Major in English

A total of 40 credits (ten courses) in English is required for both liberal arts and secondary teaching majors. Of this total, 20 credits must be taken as follows:

ENG 140 Introduction to Literary Studies (4 credits) This is the first course in the major and is prerequisite to all other required courses. It should be taken in either semester of the freshman year.

ENG	224	American Writers		(4 credits)
ENG	241	Chaucer, Shakespeare,	Milton:	(4 credits)
		Selected Works		

ENG 242 English Augustan and Romantic Works (4 credits) These three courses serve as prerequisites to all courses at the 300 and 400 level (except for those courses where prerequisites consist only of permission of the instructor). ENG 241 and ENG 242 should be taken in sequence during the sophomore year. ENG 224 may be taken in either semester of the sophomore year. Prerequisite: ENG 140.

Four credits in language studies (Department of English courses at the 300 level with numbers ending in 76-82).

Secondary education majors must take:

ENG 377 Modern English Grammar (4 credits)

Of the remaining 20 credits, at least 8 credits must be taken in 300-level courses, and at least 4 credits in 400-level courses. No 100-level courses except ENG 140 may be applied toward the major.

Requirements for the Secondary Teaching Minor in English

The secondary teaching minor in English consists of 20 credits (five specified courses): ENG 140, ENG 224, ENG 241, ENG 242, and ENG 377.

Requirements for the English Major

with Concentration in Linguistics

A modified English major with a concentration in linguistics is available for interested students. For details see the concentration in linguistics, pp. 182-87.

Special Note to Non-Majors

Students seeking electives in English or a course to satisfy the Distribution Requirement in literature may choose from among ENG 105 and ENG 111, which are open to all students without prerequisites, or ENG 200, ENG 201, ENG 202, ENG 207, ENG 208, ENG 209, and ENG 224, which are open to students with two Freshman Exploratories. Students who are not prospective English majors or minors should not take ENG 140 since it is an intensive course designed specifically as preparation for advanced courses in the major.

The First Two Years of a Typical Program

for an English Major

Semester 1 ENG 140 or Distribution Requirement Freshman Exploratory Semester 2 ENG 140 or Distribution Requirement Freshman Exploratory

Foreign Language **Distribution Requirement** Semester 3 ENG 241 ENG 224 (in either semester) Elective **Distribution Requirement**

Foreign Language **Distribution Requirement** Semester 4 **ENG 242** 200-level ENG Elective **Distribution Requirement**

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 "U" appears on transcript.)

ENG 105 Shakespeare

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. (May not be applied toward the major.)

Modern Literature ENG 111

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. (May not be applied toward the major.)

Introduction to Literary Studies ENG 140 (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 176, 177 The Nature of Language The first semester deals with language as a conceptual system and with the interrelationships of language and other cultural subsystems. Language and dialects, acquisition both of native and of foreign languages, the psychology of communication, and other topics related to the nature of language are examined. The second semester studies the relationship between speech and writing; phonological, grammatical, and semantic systems; the history of language; the application of linguistic principles to language learning, stylistic analyses, and the teaching of standard dialects. May not be applied toward the English major or minor. Identical with LIN 176, 177.

ENG	200	Topics	in Literature	and	Language	(4	credits)
Topics	or problem	ms selected	by the instructor				
Prereq	uisites: Tw	o Freshman	Exploratories.				
ENG	201	Poetry				(4	credits)
Introdu	uction to th	he analysis a	ind enjoyment o	f poet	у.		
Prereq	uisites: Tw	o Freshman	Exploratories.				

ENG 202 Epic

Introduction to the analysis and enjoyment of the epic. Prerequisites: Two Freshman Exploratories.

(4 credits)

(4 credits)

(4 credits each)

ENG 207	Drama	(4 credits)
Introduction to	the analysis and enjoyment of drama.	10 D
Prerequisites: T	wo Freshman Exploratories.	
ENG 208	Biography	(4 credits)
Introduction to	the analysis and enjoyment of biography.	
Prerequisites: T	wo Freshman Exploratories.	
ENG 209	The Novel	(4 credits)
Introduction to	the analysis and enjoyment of the novel.	
Prerequisites: T	wo Freshman Exploratories.	

ENG 210 **Fundamentals of Exposition** (4 credits) Study of the process of expository writing. Literary models used as the basis for discussion of diction, style, form, and purpose. Class and individual criticism of student papers.

Prerequisite: ENG 140.

American Writers ENG 224 (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. Prerequisite: ENG 140. Two Freshman Exploratories acceptable for non-majors.

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

Close examination of major works by these three authors. Prerequisite: ENG 140.

242 ENG English Augustan and Romantic Works (4 credits) A close examination of major texts of eighteenth and early nineteenth century English literature.

Prerequisite: ENG 140.

Introduction to Critical Methods (4 credits) ENG 290

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.

ENG	300	Special	Topics	in	Literature	and	(4 credits)
		Langua	ge				

Special problems or topics selected by the instructor. Prerequisites: ENG 224, 241, 242.

ENG 307 Modern Drama

Studies in English, American, and Continental drama since Ibsen. Prerequisites: ENG 224, 241, 242.

ENG 310 **Advanced Exposition**

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. Prerequisites: ENG 224, 241, 242.

(4 credits)

ENG 312	Classical Mythology the and Roman myths and their uses in classical an	(4 credits)
	Identical with CLS 312.	a post-classical
ENG 315	Shakespeare	(4 credits)
Reading and discus Prerequisites: ENG	ssion of a representative selection of the plays and po 224, 241, 242.	etry.
ENG 317	Early American Literature	(4 credits)
	In literature before 1820. The course may concentrat the period, at the discretion of the instructor. 5 224, 241, 242.	e on a type or
ENG 322	Nineteenth Century American Fiction	(4 credits)
Selected readings Prerequisites: ENG	in American fiction from Washington Irving to Henry 224, 241, 242.	y James.
ENG 324	American Romanticism	(4 credits)
readings drawn p period.	arious manifestations of the romantic movement in rimarily from the poetry, essays, and fiction of the	America with pre-Civil War
Prerequisites: ENG		
ENG 326	The Gilded Age merican fiction and poetry of the period between the	(4 credits)
World War I. Prerequisites: ENG		Civil War and
ENG 332	Modern American Fiction	(4 credits)
Readings in Ameri Prerequisites: ENG	can fiction from Henry James to World War II. 9 224, 241, 242.	
ENG 333	Modern American Poetry	(4 credits)
Studies in the poer Prerequisites: ENG	try of the first half of the twentieth century. 5 224, 241, 242.	
ENG 340	American Writing Now	(4 credits)
Contemporary Am Prerequisites: ENG	erican poetry, drama, and fiction. 5 224, 241, 242.	
ENG 353	Old English Literature	(4 credits)
	terature of England from the beginning to the No the Old English lyric and epic. § 224, 241, 242.	rman Conquest.
ENG 354	Medieval Literature	(4 credits)
Ballad and dram the secular in med and the Green I	and forms from the Norman Conquest to 1500, exc a, chivalric romance, the code of courtly love, t lieval civilization. Representative works and authors i Knight, Piers Plowman , Malory, Lydgate, Skelton.	he sacred and

Prerequisites: ENG 224, 241, 242.

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. Prerequisites: ENG 224, 241, 242.

Drama of the English Renaissance (4 credits) ENG 356 A survey of English drama (exclusive of Shakespeare) from 1590 to 1640. Prerequisites: ENG 224, 241, 242.

ENG Seventeenth Century English Poetry (4 credits) 360 A study of seventeenth century poetry with particular emphasis on the schools of Jonson and Donne.

Prerequisites: ENG 224, 241, 242.

Restoration and Eighteenth Century (4 credits) ENG 366 Drama

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

Prerequisites: ENG 224, 241, 242.

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

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

Prerequisites: ENG 224, 241, 242.

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

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. Prerequisites: ENG 224, 241, 242.

The English Novel ENG 369

A study of representative English novels. Prerequisites: ENG 224, 241, 242.

ENG 370 The Romantic Period

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

Prerequisites: ENG 224, 241, 242.

ENG 371 Victorian Literature

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

Prerequisites: ENG 224, 241, 242.

375 Modern Literature ENG

Modern British, American, and/or Continental literature, with concentration on the work of a small number of writers. Prerequisites: ENG 224, 241, 242.

History of the English Language (4 credits) ENG 376 A detailed survey of the English language from its beginning to modern times. Prerequisites: ENG 224, 241, 242.

(4 credits) ENG 377 Modern English Grammar A survey of English structure, especially of syntax, with descriptions based on the work of important contemporary scholars. Prerequisites: ENG 224, 241, 242.

97

(4 credits)

(4 credits)

(4 credits)

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ARTS AND SCIENCES

Old English ENG 382

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

Prerequisites: ENG 224, 241, 242.

ENG 390 **Literary Criticism**

Problems in the analysis of literature and practical difficulties in evaluating individual works. Reading in important modern and earlier schools of criticism, together with relevant works of literature.

Prerequisites: ENG 224, 241, 242.

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

Advanced topics and problems selected by the instructor. Prerequisites: Two 300-level courses in English.

ENG 410 Imaginative Writing

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

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

Prerequisites: Two 300-level courses in English.

ENG 430 **Henry James**

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

Prerequisites: Two 300-level courses in English.

Faulkner ENG 439

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

Prerequisites: Two 300-level courses in English.

Shakespeare ENG 465

Intensive analysis of four or five of the plays. Prerequisites: Two 300-level courses in English.

ENG 466 Milton

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

Prerequisites: Two 300-level courses in English.

W. B. Yeats ENG 470

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

Prerequisites: Two 300-level courses in English.

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

Topics or problems selected by the instructor. Prerequisites: Two 300-level courses in English.

(4 credits)

(4 credits)

(4 credits)

(4 credits)

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

Topics or problems selected by the instructor. Prerequisites: Two 300-level courses in English.

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 (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.

Prerequisite: Permission of the instructor.

ENG	500	Advanced Topics in Literature and (4 or Language	r 8	credits)
ENG	510	Literature and Composition	(4	credits)
ENG	531	Literary Kinds	(4	credits)
ENG	532	Literary History	(4	credits)
ENG	533	Formal Analysis	(4	credits)
ENG	534	Language History	(4	credits)
ENG	600	Studies in Language and Literature	(4	credits)
ENG	640	Studies in American Literature	(4	credits)
ENG	641	Studies in American Literature	(4	credits)
ENG	642	Studies in Old and Middle English Literature	(4	credits)
ENG	643	Studies in Renaissance Literature	(4	credits)
ENG	644	Studies in Eighteenth Century Literature	(4	credits)
ENG	645	Studies in Nineteenth Century Literature	(4	credits)
ENG	646	Studies in Modern Literature	(4	credits)
ENG	647	Studies in the Structure of English	(4	credits)
ENG	648	Studies in Literary Theory	(4	credits)
ENG	690	The Master's Project	(4	credits)

DEPARTMENT OF HISTORY

Professors:

Charles W. Akers, Chairman Richard M. Brace Melvin Cherno Robert C. Howes George T. Matthews

Associate Professors:

V. John Barnard Harold Gorvine Paul M. Michaud (Visiting) W. Patrick Strauss S. Bernard Thomas

Assistant Professors:

DeWitt S. Dykes, Jr. Leonardas V. Gerulaitis James D. Graham Gerald C. Heberle Joseph A. Klaits Roy A. Kotynek Robert J. Krompart Anne H. Tripp Richard P. Tucker Caleb R. Woodhouse

Instructors:

Leonard Bushkoff Judith A. Koucky 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, 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 programs of study leading to the degree of Bachelor of Arts with liberal arts major in history, history major with area studies concentration, secondary teaching major in history, and secondary teaching minor in history. Students in Allport College, Charter College, and New College can complete a degree program with a liberal arts major in history in eight semesters, but students in Allport College, Charter College, and New College who plan to complete a degree program with a secondary teaching major in history 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. 255 of this catalog.

Requirements for the Liberal Arts Major in History

Admission to major standing requires successful completion of any three history courses (12 credits), two semesters of foreign language study (8 credits), and acceptance by the Department of History. Completing the major requires eight departmental courses (32 credits) exclusive of University Courses. The eight courses must include HST 141, 142, and one 400-level course. A normal program will involve work in more than one field of history. For details on the language requirement for this major, see pp. 53-54 of this catalog.

Requirements for the History Major

with Area Studies Concentration

Admission to major standing requires successful completion of any three history courses (12 credits), two semesters of foreign language study (8 credits), acceptance by the Department of History, and concurrent acceptance by the Area Studies Committee. Completing the major requires six history courses (24 credits) including HST 141, 142. See pp. 177-82.

Requirements for the Secondary Teaching Major in History

Admission to major standing requires successful completion of any three history courses (12 credits), two semesters of foreign

language or linguistics study (8 credits), acceptance by the Department of History, and concurrent acceptance into the Teacher Education Program. Completing the major requires eight departmental courses (32 credits) exclusive of University Courses. The eight courses must include HST 141, 142, HST 214, 215, and one 400-level history course. The following education courses are also required: ED 244, ED 245, ED 428, ED 455. Students with this major who wish to elect a social studies minor must confer with the Placement Office and/or the Office of the School of Education before planning their programs. For details on the language requirement for this major, see p. 54 of this catalog.

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, 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.

Liberal Arts Major in History

(A Typical Program) Semester 1 Freshman Exploratory HST 141 **Distribution Requirement** Foreign Language Semester 3 **Distribution Requirement Distribution Requirement** HST Foreign Language Semester 5 **Distribution Requirement** HST Elective Elective Semester 7 HST (400 level) Elective Elective Elective

Semester 2 Freshman Exploratory HST 142 **Distribution Requirement** Foreign Language Semester 4 **Distribution Requirement Distribution Requirement** HST Foreign Language Semester 6 **Distribution Requirement** HST Elective Elective Semester 8 Senior Colloquium HST Elective Elective

Secondary Teaching Major in History

(A Typical Program)

Semester 1	Semester 2
*Freshman Exploratory	*Freshman Exploratory
HST 141	HST 142
Distribution Requirement	Distribution Requirement
Foreign Language	Foreign Language
Semester 3	Semester 4
HST 214	HST 215
Distribution Requirement	Distribution Requirement
ED 244	ED 245
Distribution Requirement	Minor
Semester 5	Semester 6
Minor	Minor
HST	HST
HST	Distribution Requirement
Distribution Requirement	Elective
Semester 7 Senior Colloquium Minor HST (400 level) Elective	Semester 8 ED 428 ED 455

*Freshman Exploratories may be used by English minors as substitutes for 8 credits of the Distribution Requirements.

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.

HST 141, 142 and HST 214, 215 are offered in both Fall and Winter Semesters, and the Department attempts to schedule other introductory courses at frequent, regular intervals.

Departmental Course Prerequisites

100-level courses: none.
200-level courses: two Freshman Exploratories.
300-level courses: two Freshman Exploratories plus special requirements listed beneath the courses.

400-level courses: major standing in the Department of History plus 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 the chief epochs of European history from about A.D. 500 to the present. Emphasis throughout is upon critical analysis of the basic economic, social, and political context of the successive transformations of Europe from early medieval times to the contemporary scene. 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.

HST 142 (Europe, 1715-present) is a survey of European history from the Enlightenment period to the modern age of industrialism, nationalism, and global conflicts. Open to freshmen: 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 to the post-Civil War period.

HST 215 is a survey of modern America: industrial growth, agricultural protest, the experiment with imperialism, domestic reform, and world leadership.

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

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

HST 234 considers 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. HST 235 starts with the Hanoverian monarchs (since 1714), analyzing the arrival of industrial production in England and the effects of this change on society and politics, the age of reform in the nineteenth century, and Britain's role in the world politics of the twentieth century.

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.

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.

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

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

HST 261 (Latin America to 1825) is a general survey of pre-Columbian and colonial

Latin America, stressing the Hispanization of the society, its socio-economic institutions, the influence of the Enlightenment, and the achievement of political independence. HST 262 (Latin America, 1825-present) is a study of the national period in Latin America, highlighting the problems of instability, the growth of industrialization and rise of the middle sectors, the emergence of nationalism and militarism, and the roots of social revolutionary ferment.

HST 286, 287 Introduction to the History (4 credits each) of Tropical Africa

An integrated series of courses offering an introduction to the history of tropical Africa from the Middle Ages to the present.

HST 286 is an introduction to the development of religious and political systems in selected areas of tropical Africa, from the Middle Ages to the mid-nineteenth century. HST 287 deals with the problems of social change in colonial and contemporary Africa. Urbanization, rural development, and political mobilization are examined in both general and specific terms.

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

A study of the Afro-American experience. Prime emphasis is placed upon institutional, intellectual, and cultural developments within the Afro-American community. The context in which such developments occur—the political, economic, and social status of Afro-Americans — is given special notice.

HST 291 surveys the Afro-American experience from colonial times through the Civil War period.

HST 292 surveys the post-Civil War experience of the Afro-American people.

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.

Prerequisite: HST 214.

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. Prerequisite: HST 214.

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

The historical development of the new republic and the social, political, and philosophical impact of Thomas Jefferson on his America. Prerequisite: HST 214.

HST 311 The Age of Jackson, 1825-1850 (4 credits) The economic, political, and social development in the United States, emphasizing the changing nature of political parties, material and intellectual influences shaping American democracy, westward expansion, and sectional conflict. Prerequisite: HST 214.

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

The origins of secession, wartime problems of the Union and the Confederacy,

principal military campaigns, the Reconstruction Era and the creation of a new Union, the significance of the Civil War and Reconstruction in American history. Prerequisite: HST 214.

HST 313 American History, 1876-1900 (4 credits) A study of the social, political, and economic history of the United States from the end of Reconstruction to the Spanish-American War. Special attention is given to the beginnings of the modern labor movement, the rise of the city, immigration, agrarian protest movements, the businessman's philosophy, and the challenge to laissez faire.

Prerequisite: HST 215.

HST 314 American History, 1900-1928 (4 credits) Political and social history of the United States from the Spanish-American War to the Great Depression. Prerequisite: HST 215.

HST 315 American History since 1928 (4 credits) A study of the United States from the Great Depression to the Cold War. Prerequisite: HST 215.

HST 316, 317 American Intellectual History (4 credits each) HST 316 surveys the intellectual and cultural history of the American people from the colonial period to the Civil War.

Prerequisite: HST 214.

HST 317 surveys major intellectual and cultural trends in the United States from the Civil War to the present.

Prerequisite: HST 215.

HST 318 Topics in American Social History (4 credits) A study of selected topics in the history of popular beliefs, social structure and organization, and the processes of social change, including movements of reform. Prerequisite: HST 215.

HST 320, 321 U.S. Diplomatic History (4 credits each) HST 320 is a study of the origins, formulation, and development of American foreign policy and diplomacy from 1775 to the Spanish-American War. Topics to be studied include Revolutionary War diplomacy, neutrality and isolationism, the Monroe Doctrine, Manifest Destiny, and the Civil War.

Prerequisite: HST 214.

HST 321 is a study of American foreign policy and diplomacy since the Spanish-American War. Topics to be studied include American imperialism, Carribbean and Far Eastern policies, American involvement in two world wars and the Cold War, and nuclear diplomacy.

Prerequisite: HST 215.

HST 322 The Social History of American Education (4 credits) Education and American social and cultural life from the colonial period to the present. Education is defined to include the educational work of the family, church, and press, as well as that of the schools. Prerequisite: HST 215.

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

Group reading and discussion combined with independent research. Topics discussed will vary but include such subjects as the nature and scope of Afro-American history,

bibliographical materials, the history of Afro-American history and the Afro-American intellectual, as well as research topics chosen by students. Prerequisite: HST 291 or HST 292.

HST 324 The Ancient Historians

A survey of the aims, methods, achievements, and limitations of ancient historiography through a reading, in translation, of the most prominent ancient historians. Identical with CLS 324.

HST 325 **Medieval Europe** (4 credits)

An intensive study of the European Middle Ages from about A.D. 400 to 1300, with special emphasis on intellectual developments. Prerequisite: HST 141.

The Italian Renaissance HST 326 (4 credits)

An intensive study of the European Renaissance period with special emphasis upon the Italian experience. Prerequisite: HST 141.

The Northern Renaissance HST 327 (4 credits)

An intensive study of European humanism with special emphasis on the Lowlands, England, and Germany.

Prerequisite: HST 141.

HST 328 Europe in the Sixteenth Century (4 credits) European society and the rise of the modern state. Selected topics in the history and historiography of the sixteenth century. Prerequisite: HST 141.

HST 329 **Early Modern Europe** (4 credits)

European society and the rise of the modern state. Selected topics in the history and historiography of the seventeenth century. Prerequisite: HST 141.

Medieval England (4 credits) HST 330

A study of the constitutional, economic, social, and religious developments in England before 1500 with a survey of the European context in which these changes occurred. Prerequisite: HST 141 or HST 234.

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

A study of the emergence of England as an international power, the religious Reformation, and changes in government, society, and culture. Prerequisite: HST 141 or HST 234.

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

A study of the constitutional crises of the seventeenth century, the developments in economic, religious, social, and cultural life, and the beginnings of overseas expansion. Prerequisite: HST 141 or HST 234.

Victorian and Edwardian England HST 334 (4 credits) The political, cultural, and intellectual life of England from 1837 to the outbreak of World War I.

Prerequisite: HST 142 or HST 234 or HST 235.

HST 335 **Twentieth Century Britain** (4 credits) The British adjustment to global wars, the later industrial revolution, mass democracy,

and social change. Prerequisite: HST 142 or HST 234 or HST 235.

HST 337 Hellenic Greece (4 credits)

Greek history from the Bronze Age to the Peloponnesian War. Identical with CLS 337.

Hellenistic Greece HST 338 (4 credits) Greek history from Alexander the Great to the Roman period. Identical with CLS 338.

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

HST Imperial Rome 340 (4 credits) Roman history from the principate of Augustus to the fall of the western empire. Identical with CLS 340.

HST 341 Europe since 1914 (4 credits)

Analysis of Europe in world perspective since World War I.

The Origins of Modern Germany HST 342 (4 credits) The ancient and medieval roots of German civilization, the political fortunes of the Holy Roman Empire and of its member states, the development of the concept of German nationality, and the rise of the German nation-state in the nineteenth century.

HST Germany since 1870 (4 credits) 343

The political history of the German nation-state, concentrating on constitutional and partisan developments and their social context.

HST 344 Nineteenth Century Radicalism

A parallel history of atheism, philosophical materialism, and socialism. From a critical study of the writings of a variety of philosophers and propagandists (Feuerbach, Bakunin, Marx, Kropotkin), the course will move to a consideration and evaluation of attempts to organize revolutionary movements around anti-theological doctrines (Germany in 1848, France in 1871, Russia in 1905).

France since 1789 HST 345

A study of the political development of modern France as a nation-state and the cultural and economic movements connected with French public life.

History of European Social Classes HST 346 (4 credits) European social strata; their interrelationships; their connections with economic, political, and cultural developments; and their transformations from the breakdown of the medieval hierarchical principle through the age of modern class conflict to current tendencies.

Tools of Historical Research 347 HST

This course is designed to acquaint the history student with the auxiliary sciences of that discipline. Special emphasis is placed on historical bibliography and the use of the library. This course is appropriate for all history majors and especially for those planning to pursue graduate study.

Prerequisite: Admission to major standing in the Department of History.

Kiev and Muscovy HST 352

(4 credits) A study of the political, social, and cultural development of Russia to Peter the Great. Prerequisite: HST 251 or HST 252.

(4 credits)

(4 credits)

HST 353 Imperial Russia

An intensive study of Russia from Peter the Great to the Bolshevik Revolution. Prerequisite: HST 251 or HST 252.

Soviet Russia HST 354

An intensive study of Soviet Russia, from 1917 to the present. Prerequisite: HST 251 or HST 252.

HST 355 **Russian Intellectual History** (4 credits) A study of the main developments in Russian thought during the nineteenth century

with emphasis on the slavophiles, the westernizers, the Russian populists and socialists, and several of the great realistic writers. Prerequisite: HST 251 or HST 252.

Russian Foreign Policy, 1700-1960 HST 356 (4 credits) A study of the foreign policy of Tsarist and Soviet Russia from Peter the Great to Stalin, with special emphasis on the underlying economic, geographical, ideological, and institutional influences on Russian diplomacy. Prerequisite: HST 251 or HST 252.

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

A comparative approach to the study of Negro slavery in North America, Latin America, and the Caribbean. Also a comparative approach to the present state of race relations in each of these three areas.

HST China: Beginnings to Mid-T'ang, ca. 750 (4 credits) 370 A study of China's prehistoric and classical foundations, of the first phase of imperial unification (Ch'in-Han, B.C. 221-A.D. 220), of the Han intellectual and state synthesis, and of the aftermath of Han collapse. Special attention will be given to the effects of Buddhist, foreign, and heterodox native influences in the subsequent development of the T'ang (618-907) cosmopolitan universal state. Prerequisite: UC 062.

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

A study of institutional, intellectual, and aesthetic responses to the failure of T'ang cosmopolitanism, and of the elaboration of gentry economic controls, neo-Confucian orthodoxy, and the literati ethos. Attention will also be given to Chinese accommodations to the problems of foreign encroachment and foreign rule. Prerequisite: UC 062.

Nineteenth Century China (4 credits) HST 373

The course will first survey imperial China during the half century preceding the Opium War of 1839-42. It will then examine China's growing crisis in the context of the massive Western impact during the second half of the nineteenth century, leading to the collapse of the traditional Chinese order in the first two decades of the twentieth century.

Prerequisite: UC 062.

Nationalism and Communism in China HST 374 (4 credits) This course, focusing on the Nationalist (Kuomintang) and the Communist periods, will trace the patterns of revolutionary nationalism in China from 1919 to the present.

Prerequisite: UC 062.

(4 credits)

HST 377 Japan to 1800

An examination of Japanese history from the pre-Buddhist period to the Tokugawas, with discussion of cultural and intellectual developments.

HST Japan since 1800 378

An examination of modern Japanese history emphasizing Japan's response to the West, with special study comparing the Japanese and Chinese experiences.

HST 382 Mughal and British India, 1526-1860 (4 credits) Politics and society of Islam, Hinduism, and Sikhism in the premodern era: European competition for power and British victory; the character of British imperialism. Prerequisite: UC 066.

HST 383 India: The Nationalist Era, 1860-1947 (4 credits)

The impact of modernization on Hindu and Muslim society; the rise of Hindu nationalism; the growth of regionalism and the Hindu-Muslim conflict. Prerequisite: UC 066.

African Socialism HST 386

An examination of the ideologies, tactics, and techniques of various recent socialist revolutions in Africa; and an attempt to relate the aims of African socialism to traditional and colonial Africa, as well as to other forms of socialist thought and practice.

Prerequisite: UC 064 or HST 286 or HST 287.

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

The Maghrib from the time of the French occupation to the present.

HST 391 **Directed Readings in History** (4 credits) A program of independent but directed readings designed for junior and senior majors in fields of history in which advanced courses are not available to the student. Offered every semester.

Prerequisite: Permission of the Department.

Senior Seminar in American History (4 credits) HST 411 Reading and research in selected topics. Prerequisites: HST 214, 215.

Senior Seminar in British History 431 (4 credits) HST Selected topics for individual research in British cultural, social, and political history, from the sixteenth to the twentieth century. Prerequisites: Two courses in British history.

HST 441 Senior Seminar in European History (4 credits) Reading and research in selected topics.

Prerequisites: Two courses in European history.

Seminar in Historiography HST 481 (4 credits) Reading and research in topics analyzing the literature of historical inquiry and writing from the Greeks to the present. Prerequisites: Four history courses.

Directed Research in History (4 or 8 credits) HST 491 A program of directed individual research designed for advanced history majors. May be taken for one or more semesters.

Prerequisite: Permission of the Department.

(4 credits)

(4 credits)

DEPARTMENT OF MATHEMATICS

Professors:

G. Philip Johnson, Chairman Louis R. Bragg John W. Dettman George F. Feeman William C. Hoffman James H. McKay

Associate Professors:

Harvey J. Arnold Donald G. Malm Harvey A. Smith Beauregard Stubblefield

Assistant Professors:

Michael Brand J. Curtis Chipman Ronald A. DeVore Jon Froemke Louis J. Nachman Irwin Schochetman Steven J. Takiff Yel Chiang Wu

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

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. (MTH 121, 122, 125, 134, 185, 186, 226, 314, 315, 316, and 322 may not be used to satisfy this requirement.) Two science courses (8 credits) are required; these are to be taken from the same department. Four courses (16 credits) in a subject related to mathematics are also required. (These courses must be taken in a single department. If they are taken in a science, they may be used simultaneously to satisfy the two-course Distribution Requirement in science.)

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

Students planning an actuarial career, graduate work in statistics or computer science, or mathematical work in government or industry should include in their programs MTH 325 and MTH 335 and several courses chosen from among MTH 326, 336, 352, 425, 431, 435, and 461.

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

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. 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 5 or 6 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 p. 212 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 Distribution 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. (MTH 121, 122, 125, 134, 185, 186, 314, 315, 316, and 322 may not be used to satisfy this requirement.)

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, and students judged ready for calculus may enroll in MTH 154. Others must first pass MTH 134. Students who have not had trigonometry should plan to take MTH 134.

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.

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.

Prerequisites: Three years of high school mathematics.

Elementary Functions (4 credits) MTH 134

A study of linear, trigonometric, exponential, and logarithmic functions, polynomials, linear equations, determinants, and selected topics from analytic geometry. Offered in the Fall Semester.

Prerequisites: Three years of high school mathematics.

MTH 154-155 Calculus

A comprehensive study of analytic geometry, limits, differentiation and integration for 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 134 or satisfactory performance on proficiency examination.

185-186 Mathematics—an Exploration (4 credits each) MTH 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**

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**

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 in the Fall Semester. Prerequisite: MTH 155.

Intermediate Calculus and Linear MTH 254 (4 credits) Algebra

An introduction to linear analysis. Vectors, linear equations, linear transformations,

(4 credits)

(1 credit)

(4 credits each)

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

A study of infinite series, multiple integration, differential calculus of scalar and vector fields, line and surface integrals. Offered in the Fall and Winter Semesters. Prerequisite: MTH 254.

MTH 290 Topics in Mathematics (1 credit)

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

MTH 291 Topics in Mathematics (1 credit)

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

MTH 314 Structure of Number Systems

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 the Fall Semester.

Prerequisites: Two years of high school mathematics.

MTH 315 Algebraic Structures

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 the Winter Semester.

Prerequisite: MTH 314.

MTH 316 Topics in Geometry

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 the Spring Session and in the Fall or Winter Semester.

Prerequisite: MTH 314.

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

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.

Prerequisite: MTH 122 or 154 or permission of the Department.

MTH 325-326 Introduction to Mathematical (4 credits each) Statistics

A study of random variables and distributions, random sampling, point estimation, interval estimation, tests of hypotheses, regression, and distribution-free methods. The theory is illustrated through applications to various fields. Prerequisite: MTH 255.

(4 credits)

(4 credits)

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

An introduction to mathematical methods appropriate to computer work. Topics treated include interpolation, approximation, guadrature, solution of differential equations, and matrix computation.

Prerequisites: MTH 254 for 335; MTH 255 for 336.

Introduction to Analysis MTH 351 (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.

Complex Variables MTH 352 (4 credits)

Analytic functions, integral theorems, series expansions, and theory of residues. Prerequisite: MTH 255.

Geometric Structures (4 credits) MTH 361

A study of topics from Euclidean geometry, projective geometry, non-Euclidean geometry, and transformation geometry. Offered in the Fall Semester during the academic year 1970-71 and in the Winter Semester during the academic year 1971-72. Prerequisite: MTH 254.

Number Theory MTH 372 (4 credits)

Number-theoretic functions, diophantine equations, congruences, and quadratic residues. Prerequisite: MTH 254.

Introduction to Abstract Algebra MTH 375 (4 credits) An introduction to the basic concepts of abstract algebra, including groups, rings, and fields. Offered in the Winter Semester. Prerequisite: MTH 254.

405 **Special Topics** (2 or 4 credits) MTH 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.

Concepts of Geometry MTH 416

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

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.

Methods of Mathematical Physics MTH 431 (4 credits) Series solution of ordinary differential equations, special functions, separation of

(4 credits)

variables in various coordinate systems, boundary value problems, eigenvalue problems, Fourier series and integrals, Laplace transforms. Offered in the Winter Semester. Prerequisite: MTH 255.

Introduction to Mathematical Science MTH 435 (4 credits) Model-building in mathematics as a logical process and as the formulation of phenomena in mathematical terms. The study of general mathematical structures for mathematical science; mathematical modelling in the physical, social, and life sciences; the role of probability and statistics in model-building. Prerequisite: MTH 255.

451-452 Analysis (4 credits each) MTH An introductory course in real analysis. Topics covered include the topology of Rⁿ, limits, continuity, differentiation, Riemann integration, uniform continuity and convergence, Riemann-Stieltjes integration, and differentiation and integration in Rⁿ. MTH 451 is offered in the Fall Semester; MTH 452 is offered in the Winter Semester. Prerequisite: MTH 255.

General Topology MTH 461 (4 credits) A study of topological spaces and continuous functions. Separation and countability properties, connectedness, compactness, and local properties will be covered. Prerequisite: MTH 351 or MTH 451 or permission of the Department.

Differential Geometry MTH 465 (4 credits) Theory of curves and surfaces in Euclidean space with an introduction to the theory of matrix Lie groups. Prerequisite: MTH 255.

Abstract Algebra (4 credits each) MTH 475-476 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.

Mathematics for the Elementary MTH 511 (4 credits) School Teacher I

Study of the structure of the real number system, elementary number theory, introduction to abstract mathematical structures.

Prerequisite: Permission of the Department.

Mathematics for the Elementary MTH 512 (4 credits) School Teacher II

Study of set theory, logic, probability theory, statistics, and topics in geometry. Prerequisite: Permission of the Department.

Topics in Elementary School Mathematics (4 credits) MTH 513

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. Prerequisite: Permission of the Department.

(4 credits each) MTH 517-518 Concepts in Analysis 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. 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.

Mathematical Methods in Engineering I (4 credits) мтн 531 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.

Prerequisite: Permission of the Department.

MTH Mathematical Methods in Engineering II (4 credits) 532 Functions of several variables, vector field theory, partial differential equations, boundary value problems, Fourier series, and Fourier integrals. Prerequisite: Permission of the Department.

MTH **Applied Mathematics** (4 credits each) 541-542 Vector spaces and vector fields; systems of ordinary differential equations; qualitative theory of ordinary differential equations; partial differential equations of mathematical physics and of the life sciences; mathematical models in physical, life, and social sciences; scientific theories and the role of probability and statistical inference. Prerequisites: MTH 451-452.

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.

Complex Analysis (4 credits each) MTH 555-556 Analytic functions, Cauchy's theorem, representation theorems, analytic continuation, Riemann surfaces, conformal mapping. Prerequisite: MTH 452.

Topology (4 credits each) MTH 561-562 MTH 561 is an introduction to algebraic topology. Topics covered include elementary homotopy and homology theory. MTH 562 will cover various topics in algebraic and general topology at the discretion of the instructor. Prerequisites: MTH 476 and MTH 461.

MTH 565 Topological Algebraic Structures (4 credits) A brief survey of topological groups, vector spaces, and algebras followed by detailed study of one or more special cases, such as locally compact groups, Lie groups, Lie algebras, Banach spaces, or Banach algebras. Prerequisite: Permission of the Department.

MTH 571-572 Algebra (4 credits each) Group theory, rings and modules, linear and multilinear algebra, and field extensions.

Emphasis is placed, where possible, on categorical properties and functorial relationships.

Prerequisite: MTH 476.

MTH 590 Directed Reading and Research (2, 4, 6, or 8 credits) Prerequisite: Permission of the Department.

DEPARTMENT OF MODERN LANGUAGES AND LITERATURES

Professors: Robert E. Simmons (German), Chairman Carmine R. Linsalata (Spanish) Richard A. Mazzara (French) Jack R. Moeller (German), Assistant Chairman Norman Susskind (French), Assistant Chairman Amitendranath Tagore (Chinese)

Associate Professors: John W. Barthel (German) William C. Bryant (Spanish) Dolores M. Burdick (French) Alfred J. DuBruck (French) Dmytro ljewliw (Russian) Don R. Iodice (French) Helen Kovach (Russian)

Assistant Professors: Svetlana Dyer (Chinese) Renate Gerulaitis (German) Helene Lerch (German) John Marney (Chinese) Luis A. Vargas (Spanish)

Instructors:

Special Instructors:

Maurice J. Beznos (French) Carlo Coppola (Hindi-Urdu) Glafyra R. Ennis (Spanish) Jerry M. Freeman (Russian) Reiner M. Guertler (German) Kathleen V. Kehoe (French) John A. McCarthy (German) Monique B. Pitts (French) Leslie S. Radcliffe (French) David Saint-Amour (French)

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)

Lecturer:

Adrienne H. Bodie (French)

Oakland University, dedicated to developing the highest intellectual and creative potential of its students, holds that the knowledge of foreign languages and literatures is an essential part of this development; indeed, that no one is really educated who has not broken through the barrier of his or her own language and come to know the mentality and culture of another people. Thus every student must satisfy a degree requirement in language.

The aim of the modern language curriculum is to help students acquire real competence in the language of a given country and, through the study of its literature, 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 prepares the student for professional graduate work and for teaching at the secondary and elementary levels.

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.

The aural-oral approach is stressed, and all literature 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. There are also sections where the traditional approach is used. All courses meet in small sections. Further, classroom work in all beginning and intermediate sections is fully integrated with regularly scheduled sessions in a modern language laboratory, where students may prepare day-to-day work, catch up in case of absence, review, work ahead, or simply enjoy their linguistic accomplishments. For this latter purpose, recordings of plays, poems, and popular songs are available.

There are several kinds of activities on campus which provide students with opportunities to put their knowledge of foreign language to use: movies, dramatic presentations of selections from modern and classical plays, language clubs, and annual competitions for the prizes given to outstanding students in each of the languages taught.

Students interested in study abroad may get assistance in the Department from special advisers who are familiar with the pos-

sibilities of study in foreign universities.

The student's selection of a language to study should be a reasoned, not a random choice; this observation holds as well for language taken to fulfill the general requirement as for the language chosen as a major field. The student should elect a language related to his or her field of interest or to his or her previous language training. If a student wishes to increase his or her proficiency in a language studied in high school, he or she should continue with it. If, however, he or she wishes to become a specialist in a language in great demand, but not widely taught in high schools, such as Chinese or Russian, he or she should not hesitate to change. Students who need advice about these choices should consult with a member of the Department of Modern Languages and Literatures.

Proficiency Examinations and Advanced Placement

Three language tests are administered by the Department. All students take the Modern Language Aptitude Test, which is designed to indicate general ability in the aural and grammatical areas. Test results are used in assigning students to 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 aural and grammatical skills in the specific foreign language in order to insure placement in language courses at a level commensurate with the student's ability. Periodically all students enrolled in language courses are required to take Achievement Tests. These serve as a measure of ability at certain given stages during the course of the student's language study.

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; the liberal arts majors in Chinese language and civilization and in Latin American languages 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.

Requirements for the Liberal Arts Major

in a Modern Language

The requirement is nine courses (36 credits) in the chosen language 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. All majors (except Chinese and Russian) must complete a departmental reading list and participate in a senior level course (485), which is based upon materials from the reading list. This course is ordinarily scheduled during the student's eighth semester. Majors are urged to elect courses in other literatures, history, philosophy, art, and linguistics 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 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 French, German, Russian, or Spanish fluently 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. 182-87.

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 are also required. For more information on this program, see the programs offered by the Language and Area Center for East Asia on pp. 178-79 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 in consultation with an adviser. Five additional courses (20 credits), 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 Brazilian 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 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 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 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. 212-17.

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 LANG 485 Major Elective Senior Colloquium

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 LANG 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.
 Chinese
 (5 credits each)

 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

century political leaders of China. Prerequisite: CHE 215 or permission of the instructor.

Twentieth Century Chinese Literature CHE 340 (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.

Chinese Classics and Philosophers CHE 420 (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.

Chinese Historical Writings CHE 430

Literary texts of ancient Chinese historiography. Prerequisite: CHE 310, or CHE 320, or permission of the instructor.

CHE 440 **Chinese Poetry**

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.

Directed Readings and Research in Chinese CHE 490

(2, 4, or 8 credits)

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

Prerequisites: Major standing and permission of the instructor.

French Language and Literature

FRH 101-102 Elementary Reading in French (4 credits each) Designed to help students acquire a reading knowledge of French. Elements of grammar, extensive reading of graded texts. Admission contingent upon departmental testing. To be followed by FRH 201-202. Not open to prospective majors.

114-115 **First Year French** FRH

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.

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.

(4 credits)

(4 credits)

(5 credits each)

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. Not open to French majors.

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

FRH 286 deals with the nineteenth and twentieth centuries.

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.

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FRH 361 Advanced Composition and Conversation (4 credits) Intensive oral work designed to perfect conversational ability, with emphasis on phonetics and diction. Extensive written work to increase the student's skill in original composition. Analysis of style in selected passages from French authors. Strongly recommended for all students, especially those planning to teach at the elementary level. Required for secondary teaching majors. Prerequisite: FRH 262.

FRH 365 Applied Linguistics of French (4 credits)

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

Prerequisite: FRH 262 or permission of the instructor.

FRH 411 Literature of the French Renaissance (4 credits) Literary, intellectual, and linguistic trends as seen in selected works of principal authors

of this period: Rabelais, Marot, Montaigne, Ronsard, and others. Conducted in French. Prerequisite: FRH 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, Fénélon, Saint-Simon, Bayle, and Fontenelle. These courses are conducted in French and are offered in alternate years.

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 and are offered in alternate years.

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, 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 and offered in alternate years.

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 and offered in alternate years. 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 and offered in alternate years.

Prerequisite: FRH 272.

FRH 453 Modern French Poetry (4

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

Prerequisite: FRH 272.

Seminar in French Literature FRH 480

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

Senior Tutorial Readings FRH 485

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

Prerequisite: 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.

French Stylistics FRH 510

Theory and practice of French stylistics.

Prerequisite: FRH 361 (or equivalent) or permission of the Department.

Applied Linguistics of French FRH 565 (4 credits)

For advanced students, 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.

Prerequisite: Permission of the instructor.

FRH **Graduate Seminar** 580

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

German Language and Literature

GRM 101-102 Elementary Reading in German (4 credits each) Designed to help students acquire a reading knowledge of German. Elements of grammar, extensive reading of graded texts. Admission contingent upon departmental testing. To be followed by GRM 201-202. Not open to prospective majors.

First Year German 114-115 GRM

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.

GRM 201-202 Intermediate Reading in German

(4 credits each)

(5 credits each)

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

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

214-215 Second Year German GRM (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.

(4 credits)

(4 credits)

(4 credits)

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)

Masterpieces of German literature. Classwork and oral and written reports in German. 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. Not open to German majors. Offered in alternate years. Prerequisite: Sophomore standing or permission of the instructor.

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

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.

Prerequisite: GRM 262 or permission of the instructor.

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 1 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.

GRM 485 **Senior Tutorial Readings**

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

Prerequisite: Major standing in German and permission of the Department.

GRM Independent Reading and Research 490

(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.

Hindu-Urdu Language

114-115 First Year Hindi-Urdu (5 credits each) HILIR An introduction to the basic structure of both Hindi and Urdu with an emphasis on both conversation and reading. The course will stress the core vocabulary common to both languages; in addition, both Devanagari and Persio-Arabic scripts will be used interchangeably.

Second Year Hindi HIN 214-215 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

POR 114-115 **First Year Portuguese** 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.

(5 credits each)

(4 credits)

(5 credits each)

POR 214 Intermediate Portuguese

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.

Russian Language and Literature

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 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.

Prerequisite: RUS 262.

RUS 365 Applied Linguistics of Russian (4 credits)

An introduction to modern linguistic insights with particular reference to their ap-

plication 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.

Prerequisite: RUS 262 or permission of the instructor.

Russian Poetry of the First Half of RUS 426 the Nineteenth Century

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

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**

Russian realistic novel from 1840 to 1880. Selections from the major novelists. Conducted in Russian and offered in alternate years. Prerequisite: RUS 272.

Chekhov and His Time RUS 435

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.

Tolstoy RUS 441

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.

442 Dostoevsky RUS

Study of Dostoevsky's evolution as a writer and thinker. Conducted in Russian and offered in alternate years. Prerequisite: RUS 272.

451 **Modern Russian Prose** RUS

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.

Seminar in Russian Literature RUS 480 (4 credits)

Intensive investigation of some aspect of Russian literature.

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

Independent Reading and Research RUS 490

(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.

(4 credits)

(4 credits)

(4 credits)

(4 credits)

(4 credits)

(4 credits)

Spanish Language and Literature

Elementary Reading in Spanish (4 credits each) SPN 101-102 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.

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

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 Second Year Spanish (5 credits each) 214-215

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.

Introduction to Spanish Literature SPN 271, 272

(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 gualified freshmen may be admitted.

Survey of Spanish and SPN 285, 286

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. Not open to Spanish majors.

Prerequisite: Sophomore standing or permission of the instructor.

Advanced Composition and Conversation SPN 361

(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. Prerequisite: SPN 262 or permission of the instructor.

SPN 401 Literature of the Spanish Middle Ages and Renaissance	(4 credits)
Masterworks of the period. Prerequisite: SPN 272.	
SPN 412 The Quixote Detailed study of Cervantes' masterwork. Prerequisite: SPN 272.	(4 credits)
SPN 424 The Golden Age Masterpieces of Spanish literature from 1500-1650. Prerequisite: SPN 272.	(4 credits)
SPN 433 Spanish Literature of the Eighteenth and Nineteenth Centuries Masterworks of the period in peninsular literature. Prerequisite: SPN 272.	(4 credits)
SPN 462 Spanish American Literature I Masterworks of Spanish American literature through the nineteenth Prerequisite: SPN 272.	(4 credits) century.
SPN 463 Spanish American Literature II Masterworks of twentieth century Spanish American literature. Prerequisite: SPN 272.	(4 credits)
SPN 472 Twentieth Century Spanish Literature Masterworks of the period in peninsular literature. Prerequisite: SPN 272.	(4 credits)
SPN 476 Lyric Poetry Masterworks of Spanish lyric poetry. A detailed study of one poet latter part of the course. Prerequisite: SPN 272.	(4 credits) t will occupy the
SPN 480 Seminar in Spanish Literature Study of individual authors, selected themes, or critical problems. Prerequisites: Major standing in Spanish and permission of the instruct	(4 credits)
SPN 485 Senior Tutorial Readings Readings, lectures, discussions based on departmental reading list for	(4 credits) r Spanish majors.

Required of senior students, not open to others.

Prerequisite: 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. Prereauisite: Permission of the Department.

SPN 499 Honors Course in Spanish (4 credits)

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

Swahili Language

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

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

 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.

 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 Languages (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 500 The Teaching of Modern Languages I (4 credits) An introduction to the use of techniques of applied linguistics in the teaching of modern foreign languages. Special emphasis on the problems of developing speaking and writing skills, teaching of structure, and the construction of testing devices. Presupposes a major concentration in a foreign language and previous teaching experience at the junior high or high school levels. Prerequisite: Permission of the Department.

ML 501 The Teaching of Modern Languages II (4 credits) An advanced-level, linguistically-oriented course with emphasis on the preparation of materials for intermediate and advanced classes. Presupposes a major concentration in a foreign language and previous teaching experience at the junior high or high school levels.

Prerequisite: One of the following: ED 428 (Teaching of the Major Field), ML 500, participation in an NDEA Institute, or permission of the Department.

DEPARTMENT OF MUSIC

Professor:	Walter S. Collins
Associate Professors:	David Di Chiera, Chairman Raymond L. Allvin
Assistant Professors:	David Daniels John N. Dovaras Robert I. Facko Lyle E. Nordstrom
Instructor:	Clifford I. Pfeil
Special Instructor:	Alice Engram

The Department of Music offers three major programs leading to the degree of Bachelor of Arts: (1) The major in music theory and composition is designed to prepare the student for graduate study in theory and composition, for college teaching, and for composing, arranging, and conducting. (2) The major in music history and literature is designed to prepare the student for graduate work in musicology, for college teaching, and for various career opportunities associated with the literary aspects of music. (3) The teaching major in music is designed to prepare the student for a career in teaching or supervising music in the elementary school or for teaching music in the secondary school. Michigan certification for both elementary and secondary teaching may be earned in this program.

Music is also a part of the extracurricular life at Oakland University. There are performance groups of various kinds on campus, and there is a lecture-concert series which brings outstanding performers to the Oakland community. During the summer the University becomes the second home of the Detroit Symphony Orchestra, which performs for the Meadow Brook Music Festival. In addition, Oakland's proximity to Detroit allows students to hear, at reduced prices, many great performing artists and to attend a wide variety of musical events in the city.

Departmental Requirements for all Music Majors

Each major must satisfy the following requirements: (1) Demonstration of major proficiency in some solo performing medium. All new and transfer students are expected to audition upon registration in order to qualify for their chosen performance major. (2) Demonstration of a minor proficiency in some solo performing medium. Teaching majors with an emphasis on instrumental music will take a minor proficiency comprised of the three instrumental technique courses, MUS 380, MUS 381, and MUS 382. (3) All students must appear in recital. The means of fulfilling this requirement will vary with the major chosen. Upon acceptance, students should request from the Department of Music a description of methods for satisfying this requirement. (4) Each student must pass a keyboard proficiency examination by the end of the sophomore year. The requirement may be satisfied by completing MUS 373 or MUS 374 with a grade of 2.0. A complete description of this requirement is available from the Department. All prospective music majors are urged to acquire as much keyboard facility as possible before entering the University. (5) All music majors are expected to be familiar with the basic literature of music. The music major is expected to know one hundred standard works by the time he graduates. Twenty-five works are suggested for study each year the student is in residence. The list of works is available from the Department. (6) Participation for seven semesters of credit (7 credits) in ensemble with a minimum of two semesters in each of two of the following categories: Category 1 – University Chorus, Oakland Singers; Category 2 – University Orchestra, Concert Band; Category 3 – Collegium Musicum, Opera Workshop; Category 4 — Accompanying. Piano majors must include Category 4. Music history majors must take a minimum of two credits in Collegium Musicum.

Requirements for the Liberal Arts Major in Music Theory and Composition

Minimal course requirements beyond UC 049 or MUS 249 are 34 credits distributed as MUS 211-212; 311-312; 321, 322, 411-412, 492-493, and 16 credits in applied music (10 in the major proficiency and 6 in the minor). German is the recommended foreign language for this major. Admission to major standing requires two Freshman Exploratories, UC 049 or MUS 249, MUS 211-212. Music majors in this program may complete their general education requirement in the University Course Program or in Allport College, New College, or Charter College, but it is important that they should first consult with a departmental adviser and the head of their chosen college.

Requirements for the Liberal Arts Major in Music History and Literature

Minimal course requirements beyond UC 049 or MUS 249 are

34 credits distributed as MUS 211-212, 311-312, 321, 322, 411-412, 490, 491, and 16 credits in applied music (10 in the major proficiency and 6 in the minor). All other requirements are the same as those for the major in music theory and composition. Music majors in this program may complete their general education requirement in the University Course Program or in Allport College, New College, or Charter College, but it is important that they should first consult with a departmental adviser and the head of their chosen college.

Requirements for the Teaching Major in Music

Students in this major will normally be certified for both elementary and secondary teaching, and they must choose an emphasis in vocal or instrumental music. Minimal course requirements beyond UC 049 or MUS 249 are 26 credits distributed as MUS 211-212, MUS 311-312, MUS 321, 322, MUS 411-412, and two courses (4 credits) from the group MUS 401, MUS 402, MUS 403, and MUS 404; and 14 credits in applied music (8 in the major proficiency and 6 in the minor). Teaching majors with an emphasis in vocal music must take MUS 401 and MUS 403 and have a major or minor proficiency in voice. Teaching majors with an emphasis on instrumental music must take MUS 401 and MUS 404 with a major proficiency in an instrument and the minor proficiency to be comprised of the three instrumental technique courses, MUS 380, MUS 381, and MUS 382. The following education courses (20 credits) are required: ED 244, 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.

It should be noted that the University Course Program has been modified for students in the teaching major in music so that the two Freshman Exploratories and the Senior Colloquium can, if properly selected, substitute for three of the Distribution Requirements. For this major, these three courses should be chosen in the social sciences area. Appropriate selections should be determined in consultation with the academic adviser.

Students electing the teaching major in music may meet their general education requirement by participating in the University Course Program or by enrolling in Allport College, Charter College, or New College; students taking other options than the University Course Program, however, may find they will need more than eight semesters in which to complete requirements for the degree. Students should consult with a departmental adviser and with the head of their chosen college.

Liberal Arts Major in Music

(A Typical Program)

Semester 1 Freshman Exploratory MUS 211 UC 049 or MUS 249 Foreign Language Ensemble Semester 3 MUS 311 MUS 321 Distribution Requirement Foreign Language Ensemble Semester 5

MUS 411 Distribution Requirement Distribution Requirement Elective Ensemble

Semester 7 MUS (490 or 492) Distribution Requirement Elective Elective Ensemble

Teaching Major in Music

(A Typical Program)

Semester 1 MUS 211 Freshman Exploratory UC 049 or MUS 249 Foreign Language Ensemble Semester 3 MUS 311 MUS 321 ED 244 Distribution Requirement Ensemble

Semester 5 MUS 411 Semester 2 Freshman Exploratory MUS 212 Distribution Requirement Foreign Language Ensemble Semester 4 MUS 312 MUS 322 Distribution Requirement Foreign Language

Ensemble Semester 6 MUS 412 Distribution Requirement Distribution Requirement Elective Ensemble

Semester 8 MUS (491 or 493) Senior Colloquium Elective Elective

Semester 2 MUS 212 Freshman Exploratory UC 054 Foreign Language Ensemble Semester 4 MUS 312 **MUS 322** ED 245 **Distribution Requirement** Instrumental Methods or Minor Proficiency Ensemble Semester 6 MUS 412

MUS 401 Distribution Requirement Distribution Requirement Instrumental Methods or Minor Proficiency Ensemble		Requirement Methods or	MUS 404 Distribution Requirement Distribution Requirement Instrumental Methods or Minor Proficiency Ensemble	
Semester 7 MUS 403 Senior Colloquium Elective Elective Ensemble		quium	Semester 8 ED 428 ED 455	
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 (4 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)
MUS	176	Timpani	(2 credits)
MUS	177	Percussion	(2 credits)
MUS	178	Harp	(2 credits)
MUS	179	Guitar (Classical)	(2 credits)
MUS Instrum	180 ents include	Renaissance Winds krummhorns, recorders, etc.	(2 credits)
MUS	181	Viola da Gamba	(2 credits)
MUS	182	Lute	(2 credits)

MUS 211-212; 311-312; 411-412 Music Theory (3 credits each) (Required of all music majors.) A six-semester study of the materials of music and of musical design through aural and visual analysis, student composition, and performance. Included for study are various polyphonic and homophonic styles in western music, instrumentation and elementary orchestration, and contemporary approaches to composition. Laboratory sessions will be provided to develop listening and sight-singing skills.

Prerequisites: Minimum keyboard proficiency and permission of the instructor.

MUS 249 Introduction to the Literature and History of Music (4 credits)

An introduction for the student with previous musical experience. Substitute for UC 049 for music majors. Normally offered in the Fall Semester.

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 249 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 249 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 249 or permission of the instructor.

Symphonic Music MUS 332

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 249 or permission of the instructor.

MUS 333 Choral Music

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: UC 049 (MUS 249) or permission of the instructor.

(4 credits) MUS 342 Music in the Baroque Era

A study of significant forms, composers, and nationalistic trends in the Baroque era. Suggested as an elective for non-music majors.

Prerequisite: MUS 249 or permission of the instructor.

MUS 345 **Twentieth Century Music**

A study of significant styles and composers from Debussy to the present. Suggested as an elective for non-music majors.

Prerequisite: MUS 249 or permission of the instructor.

Class Voice MUS 360

Elementary aspects of singing for non-voice majors, including diction, breath control, projection, and repertoire.

370 MUS Accompanying

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.

Instrumental Methods (Strings) MUS 380 (2 credits) Designed to provide the teacher with basic facilities and pedagogical techniques for the string family.

MUS Instrumental Methods (Woodwinds) (2 credits) 381 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

(1 credit)

(4 credits)

(4 credits)

(4 credits)

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 211-212; 321, 322.

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. Survey of necessary equipment and facilities.

Prerequisites: MUS 211-212, 311-312, 321, 322.

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 211-212; 321, 322.

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 211-212; 321, 322.

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, 412.

MUS 491 Directed Research in Music History (4 credits)

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

Prerequisites: Permission of the instructor and MUS 321, 322, 412.

MUS 492-493 Advanced Music Theory and Composition (4 credits each)

Primarily for the theory and composition major. Subjects included for study are canon and fugue, advanced orchestration, free composition, speculative theory, and the materials, techniques, and philosophies of twentieth century music. Prerequisite: MUS 412.

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. Prerequisite: Two courses from the series MUS 401, MUS 402, MUS 403, and MUS 404, or permission of instructor.